

CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

Section D:

FOOD DETERGENTS

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25 FEBRUARY 81
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ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
AUSTRIA	15 DEC 80	7,107,523 - 8,004,484
BELGIUM		
-Delayed	9 DEC - 17 DEC 80	883,711 - 883,875
-Non Delayed	16 DEC 80	884,817 - 884,904
-BTR	28 NOV 80	T000,090
BRAZIL	16 DEC 80	7,902,356 - 8,006,768
CANADA	2 DEC 80	1,090,501 - 1,090,950
DENMARK	8 DEC 80	7,803,874 - 8,002,063
FRANCE*	10 OCT 80 (BOP 14 NOV 80)	2,451,152 - 2,451,698
UNITED KINGDOM	7 JAN 81	1,582,201 - 1,582,550 2,050,131 - 2,050,780 44,439 - 59,021
ISRAEL	30 NOV 80	
JAPAN		
-Unexamined	—	47,030,546 - 55,006,549
-Examined	8 NOV - 10 NOV 80 4 DEC - 10 DEC 80	55,143,000 - 55,144,200 80,048,081 - 80,049,240
NETHERLANDS	8 DEC - 14 DEC 80	7,904,372 - 8,003,360
NORWAY	8 DEC 80	7,901,559 - 8,003,129
PORTUGAL	12 DEC 80	65,563 - 71,472
SWEDEN	8 DEC 80	7,902,241 - 8,007,518 732,303 - 733,916
SOVIET UNION		
UNITED STATES		
-Reissues	16 DEC 80 23 DEC 80	Re30,445 - Re30,452 Re30,453 - Re30,460
-Patents	16 DEC 80 23 DEC 80	4,238,857 - 4,240,156 4,240,157 - 4,241,456
PCT	11 DEC 80 24 DEC 80	8,002,634 - 8,002,786 8,002,787 - 8,002,902

*Printed patents actually published mid November - Late November, 1980

Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany, Sweden and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code	Patentee Name	Other Classes	Publication Date	Main CPI Class for Section		Earliest Priority	Patent No
				Latest Priority	Earliest Disclosure Basic Patent		
MEDA-				A89	69369W/42 =US 3964-992		IPC
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SE28.7.75)				MEDAC GES KLINISCHE 11.10.74-DE-448552 (31.12.73-DE-365284) B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26			

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.



DERWENT PATENTS SERVICES

1981 INSTRUCTION CLASSES QUESTIONNAIRE

It is proposed to hold a series of centralised or localised instruction classes in the period from June to November 1981 at locations which will be determined according to demand. A minimum of 5 participants will be required for each class.

The classes that will be offered are as follows:

Elementary A Coding (IC2)

A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.

Elementary BCE Coding (IC3)

A two day course for new users of CPI Sections BC & E codes with special reference to the New Chemical Code, again with discussion of examples. Max. 20 participants.

Advanced A Coding (IC4)

A two day course for those with previous training and experience of the CPI Section A codes. Max. 20 participants.

Advanced BCE Coding (IC5)

A two day course for those with previous training and experience of CPI Sections BC & E codes, with special reference to the New Chemical Code and coverage of complex examples. Max. 20 participants.

Online User Instruction
and General Overview (IC6)

A one day course giving in-depth treatment of all access points except special coding, together with formulation of strategy and "hands-on" experience. A general overview of Derwent and its Patents products will also be given. Max. 20 participants.

Advanced Online
Searching (IC7)

A one day course demonstrating the use of special coding concepts and other search parameters in the formulation of search logic to retrieve specific subjects or chemical structures. Max. 10 participants.

Cost per person for these classes is: IC2 through IC5 and IC7 £50 or \$120; IC6 £35 or \$85.

Subscribers wishing to participate in these classes are requested to complete the questionnaire overleaf and return it to Derwent not later than 31st March 1981. A schedule will then be drawn up following analysis of the replies.

Request for User Aids

Instruction Manuals
 (£5, \$12, ¥3000 each including postage).

No. sets
 required

No. 1 CPI/EPI GENERAL (INC ONLINE)
No. 2 CPI/WPI COMPANY/MANUAL CODES
No. 3 CPI CHEMICAL RETRIEVAL
No. 4 PLASDOC RETRIEVAL

Derwent Brochures
(free of charge) No. sets
 required

CPI
WPI
WPA
EPI
ONLINE

Type of Instruction Required**Number of Participants**

Elementary A Coding (IC2)

Elementary BCE Coding (IC3)

Advanced A Coding (IC4)

Advanced BCE Coding (IC5)

Online User Instruction
and General Overview (IC6)

Advanced Online Searching (IC7)

Preferred Location(s)

Dates to be Avoided

Please write or type in BLOCK LETTERS

Your Name and Company

Name Position Department

Company

Address

Principal Contact Telephone Post Code

Signed Telex

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D1: FOOD; FERMENTATION

17 MAR 1981

C.F.T.R.I., MYSORE

D11: BAKING

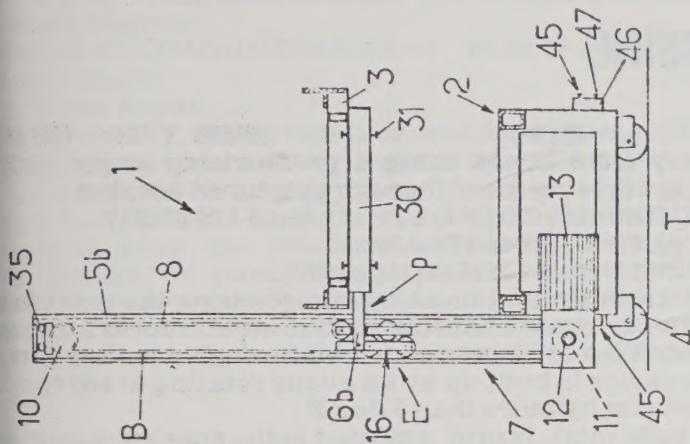
N.★ D11 00832 D/02 ★FR 2447-884
Vertical elevator for loading and discharging oven shelves - via
horizontal platform vertically displaceable on pillars fixed on
the base frame

SINAGE REVISIONS 31.01.79-FR-002495
38 (03.10.80) A21b-03/07 B66f-09/20

elevator can vertically adjust a horizontal platform to selected
heights at which the platform serves for loading and discharging
shelves from oven shelves. The elevator is of the type in which
the lifting mechanism and platform are carried on and above a
rectangular base frame, pref. mobile on ground wheels.

The base frame now has a pair of vertical pillars rising from
pillars at one end of the rectangular frame. Each pillar serves as a
guide for the vertical displacement of one of a pair of parallel,
lever arms extending over the frame at right angles to the
pillars. Each arm is fixed to an endless, drive transmission chain
running on sprockets top and bottom of the pillars.

This design is simpler, more robust and easier to service than
previous elevators of this type. It can be readily adapted for work
in a wide variety of bakery ovens.



I.★ D11 00835 D/02 ★FR 2451-165
Vertical proving chamber with bucket conveyor for dough lumps -
max. prod. capacity for restricted space bakery

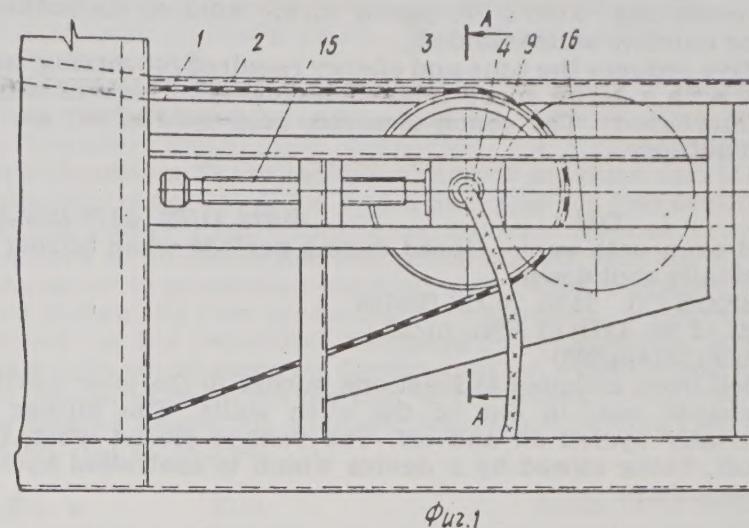
ULIEN M 16.03.79-FR-007092
14.11.80) A21c-09 A21c-13 A21d-08/02 A21d-13
3.79 as 007092 (7pp448)

Vertical proving chamber with an electrically powered continuous
conveyor with suspended buckets for carrying dough lumps etc.. The
conveyor is electrically synchronised with feed and
discharge mechanisms and is provided with emergency stop circuit.
The electric circuitry is centralised in a single control panel on the
front of the machine. The chamber space can be isolated from the
surrounding atmos., pref. by means of an aluminium partition which
slides over and closes the loading/discharge opening.
The machine is designed to offer max. capacity/occupied vol.
e.g. 259 dough pieces each of wt. between 400 g and 700 g in a
chamber of total vol. 2.8 cubic metres. The machine is therefore
suited to bakehouses where space is restricted. The machine
is easily dismantled for thorough cleaning and maintenance.

R.★ D11 01314 D/02 ★SU-733-597
Baking oven with uniform heating of movable mesh bottom -
tensioning drum containing electric heaters, with heat
transmission through drum

IEV ORGPISHCHEPROM 01.03.78-SU-587105
8.05.80) A21b-01/22
3.78 as 587105 5pp29)

Baking oven in which the heating is more uniform over the
area of the oven bottom with better temperature control. The
bottom consists of a mesh conveyor, tensioning drum with hollow
tubes and movable in a horizontal direction as the dough blanks are
fed, with supports on which flexible cables are mounted feeding
radial electric heaters, and holder for the shaft and the supports.
The holder is made with tubes disposed coaxially to the journals; the
tubes have radial openings. The electric heaters are placed inside
the drum uniformly around its circumference with the ends
engaged in the openings of the holder. Bushes of insulating material
are placed between the tubes and journals.



Φu2.1

TUPI/★ D11

Dough pieces loader for conveyor in bread-baking oven - has
dividing head fed by screw extruder which fills suspended buckets,
these being tipped to fill the moulds

TUPITSIN II 27.07.77-SU-514050
(18.05.80) A21b-03/07

27.07.77 as 514050 add to 195396 (4pp29)
Equipment for packing dough blanks into moulds, fastened to the
cradles of a bread-oven conveyor, Parent Cert.195396, which
incorporated a dough-dividing machine with screw dough supplier to
the drum-type divider, and chain conveyor to which the suspension
carriers were fastened. The dough blanks are more accurately
oriented relative to the moulds by installing a motor/ reduction
gearing to guarantee individual drive for a cam mechanism. A stop
strip is positioned along the working arms of the conveyor, which
can move vertically. Dough division is made more accurate by
installing guiding plates and flanges at the unloading point. The end
of the loading screw is made with a double flight in which the screw
pitch here equals one half of the pitch in the other part of the screw.

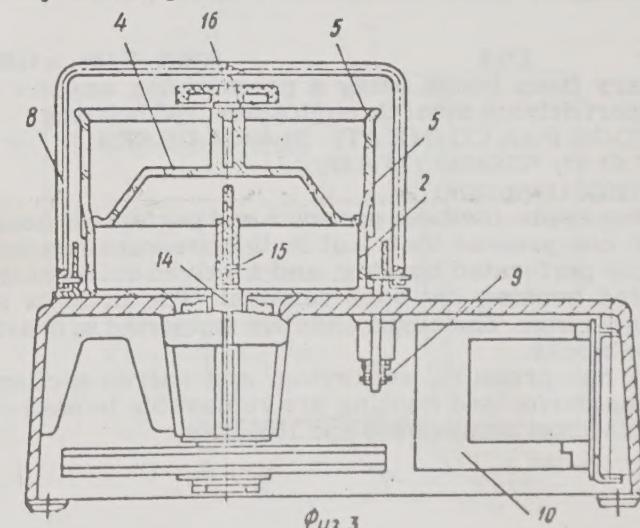
GRAI=★ D11

Laboratory dough mixer - has mixer head in form of rectangle and
two trapeziums, inside pan with adjustable height covers

GRAIN PRODS RES 23.12.77-SU-558863
(18.05.80) A21c-01/02

23.12.77 as 558863 (6pp29)

Laboratory dough mixer, which can be used in a variety of locations,
has body, pan with cover, inside which is a vertical shaft with mixing
unit attached, and motor. To increase safety during operation of the
mixer, the cover is made removable and the pan is fitted with an
extra set of covers. Catches are fastened to the inner wall of the pan
throughout its height so that the respective cover can be installed,
with the end wall and the bottom made detachable. The mixing unit
made as a rectangle and two trapeziums- the base of the lower
trapezium being larger than that of the upper trapezium. The
construction is done by welding the parts from stainless steel to
make for easy cleaning.



Φu2.3

INTT ★ D11 01576 D/02 ★ US 4239-783
 Redn. of mixing time of yeast leavened bread doughs - by addn. of
 small amt. of sorbic acid or its salts
 INT TELEPH & TELECO CORP 18.11.77-US-852834 (17.05.76-US-
 687048)
 (16.12.80) A21d-02/14
 18.11.77 as 852834 (5pp955)

In the prepn. of a yeast leavened dough by straight dough or the sponge and dough processes, by mixing 100 pts flour, 50-70 pts water and yeast leavening, 0.001-0.015 pts of sorbic acid or its sodium, potassium or calcium salts is added.

The additive reduces the time and energy required for mixing, and gives prods with a softer more relaxed texture. Pan vols of white bread are increased. The concn of sorbic acid used is too low to affect yeast activity.

RAYT ★ D11 01672 D/02 ★ US 4240-397
 Gas-fuelled oven with vent - closed during periods when burner is
 thermostatically shut down
 RAYTHEON CO 24.01.79-US-006135
 Q74 (23.12.80) A21b-01 F24c-15/32
 24.01.79 as 006135 (8pp295)

A gas-fuelled oven includes at least one burner in the oven cavity, and an exhaust vent in one of the oven walls. The burner is thermostatically cycled on and off. The vent is closed when the burner is off, being closed by a device which is controlled by the cycling mechanism.

Pref. the gas supply is controlled by a valve which is conn. to the vent closing device for operation concurrently with operation.

The apparatus minimises fuel consumption as the oven is vented to atmos. during periods when the burner is off, and the length of time the burner remains off is increased.

STBR ★ D11 01866 D/02 ★ US 4240-397
 Tortillas which remain flexible on storage - contg. added vital wheat
 gluten and a hydrophilic gum
 STANDARD BRANDS INC 29.05.79-US-042827
 (23.12.80) A21d-08 A21d-13
 29.05.79 as 042827 (3pp955)

Tortillas are prep'd. from wheat flour, water and fat, with the of 1-2 wt.% hydrophilic gum and 3-4 wt.% vital wheat gluten on wt. of flour.

Bread making flour contg. 12-13% protein is suitable. The e.g. lard. Suitable gums include karaya gum, locust bean, tragacanth and esp. guar gum. Pref. 1% gum and 4% glut used. The combination is synergistic.

See Also

D13 SU733600

D12: MEAT; FISH PROCESSING

✓ PROS- ★ D12 01576 D/02 ★ AT 7900-156
 Injection device for meat pickling brine
 PROSENBAUER & CO 09.01.79-AT-000156
 (15.12.80) A23b-04/02

✓ ORTN/ ★ D12 01672 D/02 ★ AT 8001-149
 Meat salting device
 ORTNER J A 03.03.80-AT-001149
 (15.12.80) A23b-04/02

ELRO ★ D12 00783 D/02 ★ BE -884-704
 Butchers powered tool for cleaving meat carcass - with oscillating
 blade guided by elements engaging longitudinal features of spinal
 column
 ELKEM-SPIGERVERKET 10.08.79-NO-002603
 (01.12.80) A22b
 08.08.80 as 884704 (13pp448)

Powered tool cleaves a carcass of meat longitudinally along the axis of the spinal column. The cutting is done by a blade, pivoted at one end and oscillated by a power device, e.g. a pneumatic cylinder, at the free end of the blade. The tool is provided with a handle at the pivoted end of the blade.

The tool is pref. guided along the spinal column by elements with longitudinal channels and/or splines of the column. In partic. the blade is preceded by a coplanar guide lodged in the groove of the inside of the column. On the other side of the column, two wheels are sprung symmetrically on either side of the central ridge.

A further guiding element may take the form of a needle, pref. with forked end, which enters and tracks along the rachial channel.

Used as a butchers cleaving tool for splitting carcasses of meat, partic. pork. The cleaving is carried out cleanly without splinters of bone which could be dangerous. Accurate centering of the blade is ensured by using the spinal column as a positive guide.

KART- ★ D12 00886 Y/34 = GB 1582-542
 Meat recovery from bones using a pressurising auger - with full
 bearing support driving meat through apertured housing
 KARTRIDGE PAK CO (MEAT) 31.03.76-US-672317
 P41 (07.01.81) *US4042-176 A22c-17
 22.03.77 as 012030 (13pp1376)

Meat deboning appts. includes pressure and perforated housings, an auger which compresses the meat in the pressure housing before transfer to the perforated housing, and a valved outlet at the end of the perforated housing for bone removal. The meat is squeezed through the openings. The auger ends are supported in bearings on a pair of pillow blocks.

The auger has pressure, conveying, and valved sections which along with the perforated housing are removable to ease cleaning. The auger rotates at between 500 and 1800 rpm.

KART- ★ D12 00886 Y/34 = GB 1582-542
 Meat recovery from bones using a pressurising auger - with full bearing support driving meat through apertured housing
 KARTRIDGE PAK CO (MEAT) 31.03.76-US-672317
 P41 (07.01.81) *US4042-176 A22c-17
 22.03.77 as 032551 Div ex 1582542 (11pp1376)

Bone is sep'd. from ground meat by compressing the meat to 10000 psig. in a perforated housing so that meat is forced through perforations and the bone is transferred through a valved part appts. The pressure is built up by an auger rotating at 500 rpm temp. does not rise by more than 3 deg.F.

The meat/bone mixt. is pref. agitated in the housing/auger s to improve sepn.

Parent patent claims the appts.

NIPK ★ D12 01181 D/02 ★ J800
 Colouring of meat - by addn. of nicotinic acid and di:hydroxy:ac
 and heating
 NIPPON KAYAKU KK 06.11.73-JP-124739
 E13 (E17) (08.12.80) A23l-01/27
 06.11.73 as 124739 (2pp22)

Nicotinic acid and dihydroxyacetone are added to animal followed by heat treatment. By this method a fresh colour is given to the meat without damaging of its taste and flavour. (J50071863)

KURE ★ D12 01182 D/02 ★ J800
 Processed fish or animal meat prepn. - by adding nicotini
 amide, L-cystine and/or L-algin and ascorbic acid and/or ery
 acid to meat
 KUREHA CHEM IND KK 16.01.74-JP-007015
 E19 (08.12.80) A23l-01/27
 16.01.74 as 007015 (5pp22)

In prepn. of processed fish or animal meat prod. (a) nicotini amide, (b) L-cystine and/or L-algin, and (c) ascorbic acid and erythrobic acid are added to meat.

The meat can be coloured without using nitrous acid or it (J50100258).

KOLL/ ★ D12 01182 D/02 ★ PT-
 Terminal mfr. from pressed worm-shaped sleeve material -
 electric motor driven, rotatable axially movable mandrel p
 against material
 KOLLROSS G 30.06.79-DE-926543
 V04 X25 Q31 (12.12.80) A22c B65b

MATT- ★ D12 01182 D/02 ★ PT-
 Mfg. foodstuffs with solid interior and cover - by extrus
 compress cover then cutting to length
 MATTHEWS B LTD 28.06.79-GB-022452
 P71 Q31 (12.12.80) B30b B65b

IE = ★ D12 01318 D/02 ★ SU-733-603
oval of blood from slaughtered animals - by conveying in sterile
to bleeding point, preparing skin, and inserting needle into heart
OSC MEAT IND MFG (EPID =) 30.03.78-SU-598558
31 (15.05.80) A22b-05 A61b-17
78 as 598558 (3pp29)

ding slaughtered animals, as used in the food, microbiological, pharmaceutical industries, by inserting a drainage device into heart cavity and removing the blood while, at the same time, king the aorta, so as to intensify the process and retain the lity of the product.

ster stunning the animal using an electric current, the carcass is eved on a suspension track to the point of bleeding. It is eved in a sterile toilet box with an excess air pressure, and ected to hygienic treatment with hot water (36 +2 deg.C) aining an antiseptic additive. The left side of the thoracic cage is ed over an area of 50 x 100mm and, after washing with hot er, it is sterilised with an alcoholic solution of iodine.

the carcass is transferred into another box and again the shaved is treated with the iodine solution. It is opened with a sterile e, a sterile needle is inserted and a drainage tube is connected; other end of the tube terminates in a collecting vessel filled with gen. As the blood flows from the heart cavity the nitrogen is laced. Complete drainage takes 10 minutes resulting in 1.2 litres ood. This is centrifuged in an inert atmosphere. Bul.18/15.5.80.

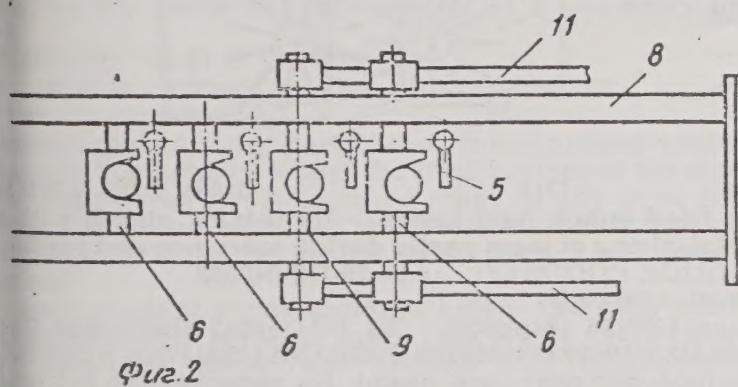
IS = ★ D12 01319 D/02 ★ SU-733-604
veying, grouping and loading equipment for sausage-like items - holders with fixing attachments and brackets to turn holders ugh ninety degrees

UMSK MEAT COMBINE (MEAT =) 06.02.78-SU-577251

15.05.80) A22c-11

2.78 as 577251 3pp29)

ipment to convey, group together, and load sausage-like articles in a coagulator into a heating installation, without damaging the cles, includes a holder with guides and drive. Additional holders, having a horizontal U-shape, are equipped with rotatable fixing chments to keep the sausages inside the holders. These are ected together in parallel, and paired brackets are fitted to the holders from the vertical into the horizontal position. The of one bracket is connected to the pivot of the previous ket, and the end of the other is connected to the pivot of the



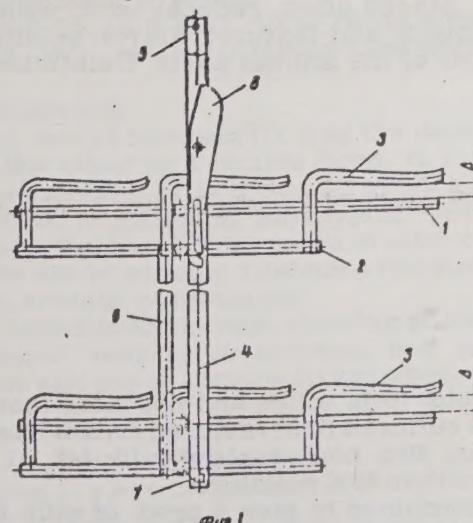
IE = ★ D12 01320 D/02 ★ SU-733-605
stage suspension frame for poultry carcasses - has movable stationary parts which are moved by double-armed bracket and ve bird wings

OLT MEAT MACH WKS 18.01.78-SU-571303

5.05.80) A22c-21

78 as 571303 4pp29)

stage suspension for fastening poultry carcasses to the hangers conveyor, while they are passed through a bath for contact



ng, each stage of which comprises stationary and movable horizontal frames, connecting rods for each pair of similar frames,

and fixing element. The suspension is automatically returned to its original position after discarding the carcasses by making the fixing element as a double-armed bracket with a link hinged on one arm. The other end is thickened and fastened to the connecting rod, reinforcing the stationary frame. The free end of the link is fastened to the movable frame of the upper stage.

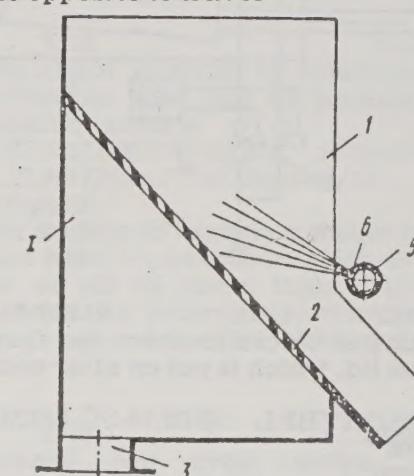
MURM = ★ D12 01321 D/02 ★ SU-733-606
Fishing boats fish catch receiver - has centrifugal roe remover located before chamber for fish designated for fodder use
MURMANSK GIPRORYBFL 06.07.77-SU-504438
(20.05.80) A22c-25
06.07.77 as 504438 (4pp962)

Receiver for industrial fishing vessels, esp. factory ships, comprises catch transfer mechanism connected via hydro-transporter to various chambers. These include chamber in which fish for human consumption is accumulated and a chamber for fish destined to be turned into fodder meal. Washing mechanisms are also included.

To ensure collection of fish roe, which is separated during transfer and transport to processing stations, water separators are included, located before the fish accumulation chambers. A concentrator is connected to the washing mechanisms, separators, and a roe washing unit, which removes foreign matter. A centrifugal extractor which separates roe from the fish, is connected to the concentrator and is located before the chamber where fish destined for fodder is collected. Bul.18/15.5.80.

FARE = ★ D12 01322 D/02 ★ SU-733-607
Fish orienting mechanism - has sloping perforated trough through which air rises under pressure, and water jets impinging on its front
FAR E DALTEKHRYBPRO 25.10.77-SU-537074
(20.05.80) A22c-25/12
25.10.77 as 537074 2pp29)

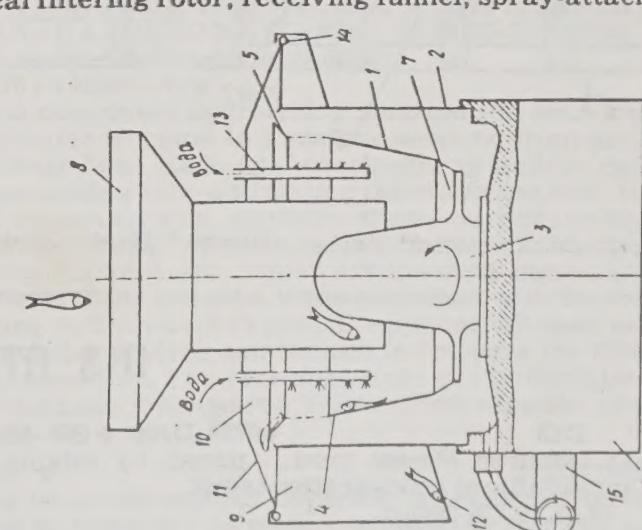
Equipment for orienting fish head first, has inclined perforated trough, chamber and system supplying working agent under pressure. The trough is installed inside the chamber and is divided into upper and lower sections. The working agent is air, which is blown in as jets from below. The channels in the bottom of the trough are set at an angle opposite to travel



MURM = ★ D12 01323 D/02 ★ SU-733-608
Fish-roe extractor using centrifugal force - has funnel coaxial with vertical rotor, and catcher with sloping base and repelling cover
MURMANSK GIPRORYBFL 19.12.77-SU-557367

(20.05.80) A22c-25/14
19.12.77 as 557367 3pp29)

Roe extraction equipment, for use with small fish in both shore and ship installations, by the application of centrifugal force, including a conical filtering rotor, receiving funnel, spray-attachment inside the



rotor, and fish catcher. Productivity is increased by making the loading and unloading more uniform, by positioning the rotor

(a), pasteurising and culturing to obtain a prepn. of pH5.2 or and then mixing (a) with (b) followed by packing at a temp. of at 65.5 deg.C. The prod. has the required flavour and standards of soft cheese being spreadable at low temp. Its prepn. is easily controlled.

B ★ D13 00873 D/02 ★ GB 1582-319
fruit content jam substitute - contg. sugar and pectin to raise soluble solids content, does not need cooking
ADBURY TYPHOON LTD 04.02.78-GB-004575
7.01.81) A231-01/06
7.78 as 004575 (4pp955)

readable fruit prod is prep by adding 5-20 wt% fruit based on wt total compsn, to a sugar soln, and sufficient pectin and acid to in the required set, to give a mixt having a total soluble solids ent of 55-75 wt%, and pasteurising the mixt. The fruit is reduced size to allow penetration of sugar soln under the mild treatment itions.

The prod. is a jam substitute. It has an excellent flavour, closer to flavour of the fresh fruit than conventional jam, as volatiles are driven off by prolonged boiling. The raw material costs are less, less energy is required for cooking the compsn. Fruit not able for jam e.g. bananas, can be used. Conventional jamming equipment can be used.

I D13 04345 A/03 = GB 1582-397
Istuff based on brewer's yeast - contains an organic acid, esp. ionic acid and is esp. suitable for pigs (NL 3.1.78)
ASF AG 30.06.76-DE-629268
03 (07.01.81) *DE2629-268 A23k-01/06
7.77 as 027173 (6pp964)

I supplement for monogastric animals comprises liq. brewers' I contg. 0.5-4 wt.% based on the yeast of an added nitrogen-free, organic acid. Specifically the organic acid is formic, acetic, ionic and/or acrylic acid; 1 wt.% propionic acid is esp. used. unboiled liq. brewers' yeast contg. 8-18 or 23-25 wt.% solids is I supplement is used esp. for pigs. It provides high amt. of stable protein, net energy, utilisable vitamins and minerals I out causing diarrhoea in young pigs.

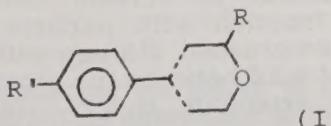
A ★ D13 00880 D/02 ★ GB 1582-451
Iinant feed supplement contg. delactosed whey - and lipid Ierial, as dry particles, provides fat in a non-bulky form (DK I78)
OLAC LTD 05.01.77-GB-000211
03 (07.01.81) A23c-11/02 A23c-21/04 A23k-01/08
7.77 as ----- (3pp476)

Ilement consists of dry particles each comprising a mixt of lipid Ierial and "delactosed whey, the lipid content of the supplement I at least 40 wt%. Delactosed whey is any prod formed by Iaction of lactose from whey to have a residual lactose content of Ithan 65 wt% of the dry solids, dried whey itself contg. at least Iactose.

I requirement of young animals, before and after weaning, for I contg total lipid levels of more than 5 wt% can be satisfied by I feedstuffs contg. the present feed supplement. The I supplement delactosed whey waste prod and provides a dry, non- I y prod convenient for handling. The delactosed whey I constitutes a carrier which is relatively high in nutritional value and I proportion of lipid in the supplement may be as high as 70 wt% or I higher without the lip apparently being expressed during I final production of pelleted feedstuffs. The supplement tends to I relatively quickly through the rumen.

D13 13743 A/07 = GB 1582-459
yl-4-phenyl-di:hydro:pyran derivs. - used as flavour and aroma
ives in smoking tobacco prods.
IT FLAVORS & FRAGR INC 12.04.76-US-676389
3 P15 (07.01.81) *US4071-034 C07d-309/18 + A231-
22
7.77 as 014669 (19pp965)

pyran derivs. are of formula (I). 1 of the dashed lines is a C-C bond and the other is a double bond. R is 2-4C alkyl, pref. propyl, ethyl or isobutyl. R' is H or 1-3C alkyl. Pref. (I) are added to tobacco prods. in a sufficient amt. (pref. 50-5000(100)ppm.) to ent or enhance the flavour or aroma of tobacco. Pref. its use is ined with the use of at least 1 tobacco flavouring additive e.g. aldehydes, acetals, pyrroles etc. may also be added to foodstuffs, chewing gums and toothpastes having green, floral, neroli-like aromas, and neroli-like, green able, jasmine and peach-lactone-like nuances.



WRIL

D13

65304 A/37 = GB 1582-499
Chewing gum for stimulating saliva flow, esp. for athletes - comprises gum base, sweetener, flavourant, fructose, and adipic ascorbic, citric, fumaric, lactic, malic or tartaric acidWRIGLEY W JR CO 26.09.77-US-836383
E17 (07.01.81) *BE-864-665 A23g-03

29.03.78 as 012261 (4pp982)

Chewing gum compsn. comprises gum base, a sweetener, flavouring additives, a palatable, safe organic acid selected from adipic acid, ascorbic acid, citric acid, fumaric acid, lactic acid, malic acid and tartaric acid. The acid stimulates salivation beyond that due to chewing food and constitutes at least 3 wt.% of the gum compsn. The compsn. also contains at least 10 (10-70) wt.% of fructose.

Pref. the sweetener is dextrose and the compsn. contains up to 4 wt.% of Na or K salts. The cottonmouth condition experienced when chewing conventional gums is avoided. Body salts lost due to perspiration can be partly replaced. Compsn. has improved shelf life.

MAZN ★

D13

01015 D/02 ★ J5 5143-920
Liq. branched chain satd. higher aliphatic polyol - useful as surfactant, emulsifying agent, and antibacterial agent

MARUZEN OIL KK 27.04.79-JP-053246

B05 E17 (10.11.80) A231-03/34 B01f-17/38 C07c-29/48 C07c-31/18

27.04.79 as 053246 (14pp75)

Liquid branched chain satd. higher aliphatic polyol of formula A-CH₂-CHE-CE'B-CH₂-D (I) is new. In (I) A is CH₃(CH₂)_n-CH(CH₃) or CH₃(CH₂)_n+2 (where n is 0 or 1); B is H or CH₃; D is -CFG-(CH₂)_n-CH₃; F is -CH₂OH, -OH or -CH₃, and when F is -CH₂OH, G is H or -OH, and when F is OH, G is -CH₃, and when F is -CH₃, G is H; and E and E' are, when F is -CH₂OH and G is -OH, respectively selected from H and -OH, and when F is -CH₂OH and G is H and when F is -OH, either of E and E' is -OH, and when F is -CH₃, both E and E' are -OH.

(I) are useful as surfactants, emulsifying agents for liq. paraffin, fat and oil, etc. This shows remarkable antibacterial and bactericidal activity against Gram-positive and Gram-negative bacteria. They may be used as a food additive.

YOKG ★

D13

01151 D/02 ★ J8 0048-254
Determn. of ozone concn. in water by polarographic method - using as reagent a carboxylic acid and its ammonium salt mixt., e.g. acetic acid, ammonium acetate

YOKOGAWA ELECTRIC WKS KK 16.04.75-JP-045306

E36 J04 (04.12.80) G01n-27/48 G01n-33/18

16.04.75 as 045306 (4pp83)

Method comprises adding to sample a water reagent (I) which has carboxyl group and NH₄⁺, no unsaturation, is not oxidised by O₃ to give buffer soln. of pH of more than 2 in acidic region, and determining O₃ concn. by polarographic method. (I) is e.g. acetic acid-ammonium acetate mixt, citric acid-ammonium citrate mixt, etc. (J51120790).

SNOW ★

D13

01180 D/02 ★ J8 0048-775
Freezable processed egg prod. prepn. - involves adding methoxylated pectin to fresh egg and processing

SNOW BRAND MILK PRODUCTS 17.02.73-JP-018878

A97 (08.12.80) A23b-05/04

17.02.73 as 018878 (3pp22)

To fresh egg is added 0.05-2 wt.% of low methoxylated pectin, and the mixture is processed. The product can be stored frozen without damage to its taste and flavour. (J49108267).

TAKA-

D13

83953 Y/47 = J8 0048-779
Improving taste and flavour of foods - using seasoning soln. obtd. by hydrolysing defatted red bran and/or tiger bran with enzyme(s)

TAKARA SHUZO KK (TAKR) 06.04.76-JP-039061

(08.12.80) *J52122-678 A231-01/23

06.04.76 as 039061 (6pp)

Method comprises hydrolysing defatted red bran and/or tiger bran with greater or equal to 1 enzyme selected from amylase, rice Koji and wheat bran Koji; opt. decolourising and/or concentrating the obtd. seasoning soln. and adding the seasoning soln. to foods.

The seasoning soln. contains phenol-carboxylic acid derivs. such as ferulic acid, vanillic acid, caffeic acid, p-cumaric acid, phenylacetic acid, etc., which are the tasty ingredients of mirin and very sweet foods are obtd. when combined with the soln.

During hydrolysis it is pref. to apply proteinase, cellulase, lipase, etc. to utilise protein and fat and to improve the filterability of the decomposed soln. The seasoning soln. can be combined in soy sauce, amino acid-soy, bean paste, 'mirin', fruit wine etc. (J52122678).

YAMA-★

D13

01183 D/02 ★ J8 0048-788
Drying foodstuff without adversely affecting taste and flavour - by heating to remove free water, microwave heating, cooling and air-drying

YAMAUMI KK 21.01.76-JP-006470

(08.12.80) A231-03

21.01.76 as 006470 (9pp22)

Foodstuff is (a) heated to remove free water; (b) heated by microwave technique at 120-180 deg.C; and (c) cooled and air-dried. Taste and flavour are not effected. (J52090641).

DAME/ D13 42562 U/30 = J8 0048-790
Preserving food - by treating with a preserving agent after
immersion in a glycol

DAMESAR H A (DAM) 23.08.71-US-174191
E17 (D12) (08.12.80) *J48028-652 + A23b-04/14 A23b-07/15 A23I-
03/34

23.08.72 as 083809 (+ 23.8.71-US-174191) (5pp)

Method comprises (a) immersing the food in 1,3-butylene glycol or propylene glycol while the foods contain cellular moisture; (b) during immersion dehydrating the food and simultaneously permeating the treating into the food and (c) removing the food and removing residual and excess glycol affording a preservable food contg. 2.0-10wt.% glycol.

Decrease of net wt. of the food in the treating process is 20-80% max. size of the piece is 1.27mm; max. distance between food and treating agent is not more than 12.7 mm; the treating agent contains at least 5% soluble osmotic-pressure modifier which is sugar or salt; the treating agent contains moisture absorber chosen from methanol and glycerol; treating time is less than 1 hr; the treatment with glycol is continued, until no noticeable changes in total wt. and moisture content of the food occur. Food is fish, meat, fruit or vegetable protein. Treated food is preservable at room temp. for months. (J48028652).

YAMS D13 72944 X/39 = J8 0048-795
5'-Nucleotides useful as seasoning agents or pharmaceuticals -
prep from oligonucleotides with 2'-5' phosphodiester bonds

YAMASA SHOYU KK 05.02.75-JP-014444
B03 E11 (B02) (08.12.80) *J51091-394 + C12p-19/32

05.02.75 as 014444 (6pp)

Oligonucleotides with 2',5'-phosphodiester bonds are treated with 5'-phosphodiesterase which breaks down the 2',5'-phosphodiester bonds. Prodn. of 5'-nucleotides from commercially available yeast RNA is inhibited by the presence of 2',5'-phosphodiester bonds which resist attack by nuclease P1 of Penicillium citrinum.

-Phosphodiesterase with the ability to break -phosphodiester bonds has now been discovered in certain strains of Aspergillus niger, which provides a useful method for the prepn. of 51-nucleotides, which are used as pharmaceuticals and seasoning cpds. (J51091394).

SANU- D13 37014 X/20 = J8 0049-006
Table salt with low potassium content - prep from sea water, with
addn of e.g. sodium salt, calcium salt, etc.

SANUKI ENGYO KK 30.09.74-JP-111583
(09.12.80) *J51038-437 C01d-03/06

30.09.74 as 111583 (7pp)

The process comprises treating sea water with an ion-exchange film and crystallising the salt by concg. the water in a multiple effect evaporator. The improvement comprises adding a soln. of at least 1 of sodium salt, calcium salt and magnesium salt to the conc. salt water in the evaporator serving as the major crystalliser, and crystallising salt exclusively in the evaporator. (J51038437)

LEZH ★ D13 01313 D/02 ★ SU -733-592
Silkworm productivity enhancement with chemical stimulants -
using alpha-solanine and alpha-chaconine to increase resistance to
adverse conditions

LENINGRAD ZHDANOV UNIV 20.11.78-SU-685722
C03 E17 F01 P14 (17.05.80) A01k-67/04
20.11.78 as 685722 6pp1439.

An increase in the yield of mulberry silkworm cocoons can be achieved by the use of chemicals to stimulate silkworm growth. The method is improved by using alpha-solanine and alpha-chaconine as stimulants. The latter are sprayed on mulberry leaves in the form of water solns. at a rate of 25 ml. of soln. per 100 grams of feed.

In experiments, the stimulants gave an increased silkworm weight when fed on healthy leaves, resistance to insufficient feeding and low quality leaves, and resistance to cold. Bul.18/15.5.80.

FOOD = ★ D13 01317 D/02 ★ SU -733-600
Charger for confectionery and bread baking ovens - has receiving
and feeding rollers bearing truncated conical pulleys pointing in
opposite ways

FOOD IND CORRESP 15.12.77-SU-553361
(D11) (15.05.80) A21c-09/08
15.12.77 as 553361 5pp29)

Semifinished food blanks charger, used in the confectionery and bread-baking industry, consists of two conveyors, one of which is made with receiving and transferring rollers with endless elastic belts arranged in rows between them. Pulleys, in the form of truncated cones, are fastened to the rollers in such a way that the smaller base of each pulley of the transfer roller points away from the centre line of the conveyor. The smaller bases of the pulleys on the receiving rollers point towards the centre line. The ratio of the distance between the two rollers is 1:60, the relation of the angles of

slope of the rollers exceeding 1-3 deg. The ratio of the between the pulleys on the transfer roller to the mean diameter of the pulley is within the limits 1:4 to 1:10.

BUTT = ★ D13 01328 D/02 ★ SU
Pepsin determination in milk-curdling preparations - by mi-
phosphate buffer at stated pH and comparing curdling t-
standard pepsin solution

BUTTER CHEESE IND 16.02.78-SU-579439
S03 X25 (20.05.80) A23c-19/02 G01n-33/16

16.02.78 as 579439 (3pp29)

Determination of amount of pepsin in milk-curdling preparations used in the production of cheese, and controlling its quality by injecting standard and studied ferments into the milk and also the time taken for the milk to curdle in each case, with calculation of the fermenting agent. Accuracy is increased by using curine pepsin as the standard and inhibiting the ferments by them for 5-15 mins in a phosphate buffer at pH 7.4 and 40-45°C. The pepsin content(X) is determined in terms of the time taken for the milk to curdle under the effects of the pepsin(T1) and taken under the effects of the unknown curdling preparation viz. X = T1.100/T2. Bul.18/15.5.80.

GPOL = ★ D13 01329 D/02 ★ SU
Processing green leaf tea - with cutting carried out before
for uniformity of mass

GEOR POLY(TEAI =) 31.01.78-SU-575696
(20.05.80) A23f-03

31.01.78 as 575696 2pp29)

Green leaf tea preparation, to improve its quality, by cutting, freezing, thawing, fermenting and drying; doing the stages in order reduces the preparation cycle, and also improves the homogeneity of the mass. This is because the conditions of transfer, etc. during the freezing and thawing are simplified, there is a reduction in the utilisation of cold and heat per unit product.

ODSU = ★ D13 01330 D/02 ★ SU
Juice extraction from apples - by electro-plasmolysis of
from first pressing, with a second pressing

ODESS SUPPLY MACH 05.10.77-SU-532735
(20.05.80) A23l-02/02

05.10.77 as 532735 (2pp29)

Juice extraction from vegetable raw material, e.g. apples, in food industry, by pulping the apples, treating by electroplasmolysis and pressing. The yield of juice and its quality are increased by pressing directly after pulping, subjecting the solids residues to plasmolysis, and finally pressing a second time. Pressures of 180 atm are used and the plasmolysis is carried out in an electric field with a gradient of 40V/cm over 0.5 sec.

GFOO = ★ D13 01345 D/02 ★ SU
Food or perfume rotary mixer - has two sets of toothed
meshing together, with peripheral holes and baffles to prevent
(juice) passing through

GEOR FOOD IND RES 03.04.78-SU-596740
J02 (18.05.80) B01f-07/26

03.04.78 as 596740 Add to 617057 (2pp29)

Rotary mixer, for the food and perfume industries, according to Parent Cert.617057, in which the stator was made of toothed discs fastened inside the body throughout its height. The rotor consisted of toothed discs on a shaft, with the two sets of discs meshing together. Partitions with holes around the periphery are placed between the fixed and movable discs. In the improved productivity is increased by installing baffles at the rotor inlet to prevent leakage of the processed material.

FATS = ★ D13 01347 D/02 ★ SU
Soya bean sepn. from impurities - by bean conditioning to
humidity, specified fraction sepn. and subsequent crushing

FATS RES INST(USSU =) 13.09.77-SU-534265
P41 (17.05.80) B02b-01 B02c-04/08

13.09.77 as 534265 (3pp110)

The method is used to separate soya beans from impurities which can be employed in oil and fats prodn. industries. The method is specifically used to separate Xanthium and D.Strumarium from the soya beans. The method is carried out by crushing the beans with rollers with differential of 1.5-2.5 and subsequent crushed product. In order to improve the sepn. efficiency, to simplify the process and reduce the energy consumption, the original beans are conditioned to humidity of 9-13% at 10-60 deg. C.

After conditioning the beans to certain humidity they are fractionated with sepn. of fraction with particle size of 3-4.5mm. The above fraction is then crushed. Rollers with grooves of 3-4.5mm and a distance of 1.5-3.0 between the grooves are used for the fraction crushing. The crushing rollers rotate at 1 rev/min. Bul.18/15.5.80.

D13 01348 D/02 ★ SU-733-723
barley production - grain is moistened, dehusked, polished
times, sieved to remove fines and flour, and graded by size
AIN PRODS RES 30.12.77-SU-564006
(17.05.80) B02b-01
7 as 564006 (3pp29).
barley production, by moistening the corn, dehusking,
ng, sorting out the fines and the flour, and grading to produce
ent fractions. The yield is increased and the process is
ned by subjecting the grain to soaking for 8-10 mins after
ening to 1.0-1.5%. Following each polishing stage the finer
ons and the flour are taken out, using a No.27
Bul.18/15.5.80.

D13 12937 C/08 = US 4238-997
ntal rotary drum blanchering appts. for hot brining
trout - improves efficiency of heat transfer by countercurrent
rough several drums
NGSTENBERG E (HENG) 12.10.78-DE-844430
12.80) *BE-879-362 A23b-07/06
9 as 084281 (5pp1376)

kraut blanching appts includes a series of rotatable perforated
; through which the sauerkraut passes in sequence, and a
eacle holding brine through which the sauerkraut travels in
drum. The receptacle has spaced areas for brine, a drum
ng in each area. The brine is heated during transfer from the
of one drum to the inlet of the next.
oughput of sauerkraut is increased.

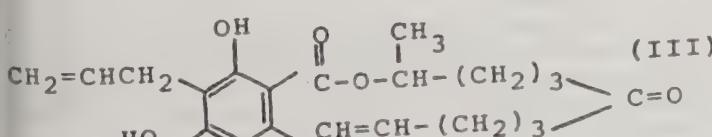
D13 01426 D/02 ★ US 4239-394
nalyser for determining fat content of milk - has homogeniser
photometric measuring appts. contained in thermostatically
lled body
DSS ELEC A/S 08.04.77-SU-480802
4 S03 X25 (16.12.80) G01n-21/*
7 as 894389 (8pp67)

analysing appts. for determining the fat content of milk samples
rises manually operated dosage piston pumps for mixing
nt and liq. sample in a predetermined relationship and a
ally operable homogeniser for providing homogenised mixture
hotometric measuring appts. for measuring a constituent of the
le in the mixt. The homogeniser and photometric measuring
are arranged within a thermostatically controlled heat
active body.
ed for the analysis of small liq. samples. The appts. provides a
e temp. control of the homogenised sample being measured.

D13 56404 B/31 = US 4239-750
al feed mixt. for poultry, pigs, etc. - contg. proteolytic enzyme
lincomycin or oleandomycin
ENKEL KG AUF AKTIEN 20.01.78-DE-802398
3 C03 (C02) (16.12.80) *DE2802-398 A23k-01/17
9 as 004281 (4pp954)

efficiency animal feed for chickens and pigs comprises
hydrates, protein and fats and contains 1-250ppm of an
totic i.e. lincomycin or oleandomycin, and a content of acid
olytic enzymes of a wide spectrum of activity between pH 2.5
5 in an amt. such that the enzymic activity is 0.05-2.5 mTU per
nimal feed.
. the antibiotic lincomycin is present in an amt. of 10-100ppm,
andomycin in 5-8ppm.

D13 88682 C/50 = US 4239-772
al growth promoter zearalin derivs. - prep'd. by reaction with
aldehyde and opt. Claisen rearrangement and/or hydrogenation of
sulting 4-o-allyl cpd.
MINERALS & CHEM CORP 30.05.79-US-043801
2 C02 (16.12.80) *DE3020-470 C07d-313 + A61k-31/36
9 as 043801 (5pp918)
allylzearalenone (I) is a new growth promoting cpd. 3-
earalenone (II) 3-allyl-cis-zearalenone and 3-(1-
)zearalanone are also claimed.
as formula (III, X is H and Y is CH₂:CHCH₂O-) and, (II) has
a (III, X is CH₂:CHCH₂-, and Y is OH).
cpds. are growth promoting agents for e.g. ruminants and
y.



D13 01575 D/02 ★ US 4239-782
ood for enhancing the colour of fish - contains a testosterone
ganic pigmenting agent such as carotenoid(s)
UATIC DIET TECHNO 16.04.79-US-029916
3 (16.12.80) C12k-01
9 as 029916 (3pp916)

Colour of new born fish is enhanced by feeding them with a
proteinaceous fish food until they are five to eight weeks old and then
with a food comprising proteins, carbohydrates fats, 0.003 to 0.018
percent by wt testosterone and 0.5 to 1 percent by wt of an organic
pigmenting agent. The pigmenting agents are carotenoids,
canthaxanthine, lutein, apo-carotenol or marigold.

The presence of the testosterone enhances the effect of the
pigmenting agent. Suitable testosterone derivs include 17 alpha-
methyl testosterone and 17alpha-ethyl testosterone.

FROM D13 39849 Y/23 = US 4239-784
Textured milk protein prod. - from dough contg. aq. casein
suspension and whey protein, heat treated to cause reaction between
the protein disulphide bridges

FROMAGERIES BEL SA 05.12.75-FR-037374
(16.12.80) *BE-849-050 A23j-03

06.07.78 as 922450 (+ 17.11.76-US-742911) (8pp965)
Preparation of food prods. from a hydrated paste based on milk
proteins comprises moulding a paste (I) to make a texturised prod. in
ribbon, fibre, granule or bit form. The paste is then thermally
treated at 50-150 deg.C for a time sufficient, up to 3 hrs. to produce
phosphocaseinate bridges between casein molecules.

The paste comprises an homogeneous mixt. prep'd. from an aq.
casein suspension, with milk protein content w.r.t. paste of 10-45%,
water 35-85%, and, dry material 15%. The milk proteins contain
enough P to form phosphocaseinate bridges. Pref. the paste also
contains serum proteins in a ratio w.r.t. the casein of up to 6, and
also in sufficient amt. to form disulphide bridges between the paste's
protein in the thermal treatment stage.

The milk proteins are texturised by a simple and cheap device, to
form a stable and infusible food prod.

SCMZ ★ D13 01578 D/02 ★ US 4239-786
Low fat coffee whitener - contg. sweetener, water-dispersible
protein, and fluid shortening

SCM CORP 25.06.79-US-051994
(16.12.80) A23c-11/02

25.06.79 as 051994 (7pp478)
A fluid compsn. useful as a coffee whitener is prep'd. by metering a
lipid system into a mixt of a sweetener, H₂O-dispersible protein, and
H₂O.

The lipid system is a shortening (pumpable at room temp. but
sufficiently stiff to resist phase sepn) consisting of a hydrogenated,
beta-forming, mainly 16-18C fat (I) contg. (as stable suspension) a
crystalline normally solid phase fat or fatty acid derived food
stabiliser component (II) and an oil/ H₂O emulsifier (III). (I) is bland
in flavour, has IV 85-100, and SFI (at 50 deg F) ca 10-18.

The whitener compsn. is pref. a spray-dried prod., and contains 21-
50% shortening, 40-70% sweetener, and 4-6% protein (all dry wt.
basis). The sweetener is pref mainly dry corn syrup solids; and the
protein is soy protein, non-fat milk solids, etc.

The compsn. has good shelf life, and allows the use of much
reduced fat levels.

PENI- D13 24010 B/13 = US 4239-852
Detection of antibiotics in liquid samples e.g. milk, body fluid - by
incubation with sensitive microorganism, incubation with marked
substance, and determin. of marked cpd.

PENICILLIN ASSAYS INC (CHAR) 12.06.78-US-914414 (21.11.77-
US-853541)

B04 J04 S03 (S05) (16.12.80) *BE-872-177 + G01n-31/14

12.06.78 as 914414 (9pp945)

An antibiotic (I) in a liq. sample (II) is detected by first incubating
the sample with cell parts (III) of a microorganism sensitive to (I) so
that (I) molecules bind to receptor sites of (III). The mixt. is
incubated with an enzyme lagged substance (IV) capable of binding
with the receptor sites. (III) are then sepd. from the liq. and the amt.
of (IV), associated with either (III) or the liq. is determined. This
value is compared with a standard to obtain an indication of the
presence of (I) in (II).

(II) is e.g. milk, meat extract or fermentation broth. The method is
sensitive and fast, e.g. 0.001 I.U. of penicillin per ml. can be detected
in under 10 minutes.

BENC D13 03828 C/03 = US 4239-922
Poly:alcohol esp. xylitol prepn. - with decolouration and ion
exchange of sugar solns. and poly:alcohol solns. in same ion
exchange plant

BENCKISER-KNAPSACK 22.06.78-DE-827477
E17(D17) (16.12.80) *EP---6-592 C07c-31/18

13.06.79 as 048074 (8pp393)

Prodn. of xylitol comprises (a) decomposing the wood of deciduous
trees or annual plants with dilute mineral acid at elevated temp. to
give a soln. contg. xylose sugar with minor amts. of CH₃COOH and
mineral salts, (b) ion exchanging the soln. and decolourising it in the
exchanger, (c) hydrogenating the sugar soln. to produce a
polyalcohol soln. contg. mainly xylitol, (d) ion exchanging the soln.
and (e) recovering xylitol from the soln. Steps (b) and (d) are effected
in separate sugar and polyalcohol cycles in the same exchanger.

Process results in significant savings in investment costs,
regeneration costs and evapn. costs.

SHIO

D13

00118 X/01 = US 4240-957

Aroyl-aryl-substd. dipeptides - with anxiolytic, sedative, anticonvulsant, hypnotic and muscle-relaxant activity

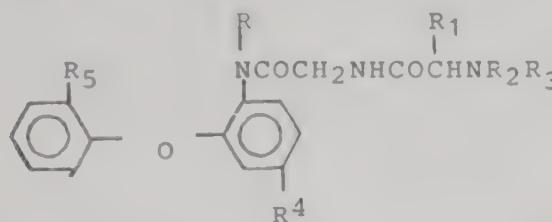
SHIONOGI KK 06.08.74-JP-090566 (06.08.74-JP-090565)

B05 C03 E14 (B02 B03) (23.12.80) *BE-832-190 C07c-103/52

07.03.77 as 775646 (11pp937)

Dipeptide derivs. of formula (I) and their acid salts (1) are useful as anxiolytics, sedatives, anticonvulsives, hypnotics, muscle-relaxants. Specifically claimed cpds. include 2-benzoyl-4-chloro-N-methyl-N alpha-L-phenylalanyl-glycinanilide.

In (I) R is methyl, ethyl, isopropyl, butyl, pentyl, cyanomethyl, cyanoethyl, cyanopropyl, cyanobutyl, dimethylaminoethyl, diethylaminoethyl or diethylaminopropyl; R1 is H, methyl, ethyl, isopropyl, butyl, pentyl, benzyl, phenethyl or phenylpropyl; R2 is H, methyl, ethyl, isopropyl, butyl, pentyl, benzyl, phenethyl, phenylpropyl, glycyl-glycyl or glycyl; R3 is H, methyl, ethyl, isopropyl, butyl or pentyl; R4 is Cl; R5 is H, Cl or F.



INTM ★ D13

01840 D/02 ★ US 4241-061

2-Oxazolidinyl-quinoxaline-1,4-dioxide derivs. - useful for improving animal growth rate and feed efficiency

INT MINERALS & CHEM CORP 21.05.79-US-040833

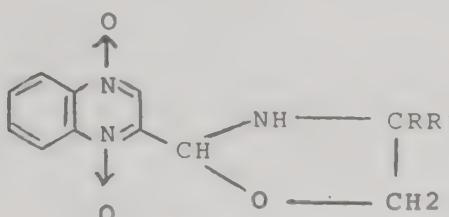
B02 C02 (23.12.80) C07d-31/49 C07d-413/04

21.05.79 as 040833 (5pp1251)

Quinoxaline derivs. of formula (I) are new. R and R1 are H, methyl, ethyl or hydroxymethyl. Also new is a method for promoting growth of animals by incorporating (I) into their feed at 150-50g per ton.

Where R and R1 are H, methyl or hydroxymethyl; R is H and R1 is methyl; or R is hydroxymethyl and R1 is H or methyl are specifically claimed.

(I) improve growth rate and feed efficiency, esp. in broiler chickens, turkeys and steers and are pref. used at about 100 g per ton.



DEGS

D13

46773 U/33 #US 4241-085

N-acylmethionine feed additives - for ruminants to improve eg wool prodn

DEUTSCHE GOLD & SILBER 04.02.72-DE-205210 (16.02.73-US-330110)

C03 (23.12.80) *BE-794-837 A61k-31/19

12.03.79 as 019406 Div.ex. 4093740 (3pp924)

Cattle having a paunch contg. a microflora of bacteria and protozoa which normally breakdown added synthetic amino-acids, are fed with fodder which goes to the paunch and contains an N-acylmethionine of formula (I) CH3-S-CH2-CH2-CH(NHCOR)COOH (where R is 7-21C aliphatic hydrocarbon) as a source of methionine which is not broken down in the paunch.

Pref. (I) is present in an amt. equiv. to 0.01-5% of methionine, and is also fed in an amt. effective to increase the growth of the cattle. Pref. the fodder includes grass. The fodder can be fed to other ruminants e.g. sheep, goats, deer or antelope.

BATT

D13

89608 A/49 = US 4241-089

Carbohydrate based ruminant feedstuff - contg. glucosyl-urea to increase cellulose and nitrogen assimilation

BATIELLE MEMORIAL I 10.06.77-CH-007159

C03 (23.12.80) *WP7800-017 A23k-01/16

08.06.78 as 913834 (3pp931)

A feedstuff for livestock comprises 90-95 wt. % of carbohydrates and 2-10 wt. % of a urea deriv. e.g. a crystallised glucosylurea of 90% or more purity, such that the total chemically unbound urea and glucose is 10 wt. % or less.

Pref. the carbohydrate component comprises 30.70 wt. % of starch and 20-50 wt. % of cellulose and hemicellulose. The feedstuff further comprises water, binders, premix vitamins, fats and/or flavours.

The feedstuff is prep'd. by heating 1 equiv. of glucose with 1 equiv. of urea to deg.C with stirring in the presence of H2SO4 as a dehydrating agent, then diluting with 30-50 wt. % of water. The mixt. is conc. and cooled until glucosylurea crystals separate which are then collected and mixed with the carbohydrates.

LIFE- ★

D13

Non-adhesive, high cud volume chewing gums - contg. a sweetener, flavour, alpha cellulose as slip agent, water and thickener

LIFE SAVERS INC 21.12.78-US-971756

A97 (23.12.80) A23g-03/30

21.12.78 as 971756 (5pp478)

Chewing gum with non-adhesive props. consists of (by wt.) base, sweetener, flavouring, 1-15% of alpha-cellulose water, and 0.2-3% of a thickener (II). (II) may be hydrolyzed solids, malto-dextrin, modified food starch, low DE corn solids, alginates, carrageenan, xanthan gum, gelatin, tragacanth, locust bean, and other water soluble gums, or C

Use of the slip agent (I) improves quality, imparts non-adhesive props. to the gum (so that it does not stick to dentures, etc.) significantly increases cud size.

LIFE- ★

D13

Non-adhesive, high cud vol. chewing gum - contg. a sweetener, flavour, alpha cellulose as slip agent, and water

LIFE SAVERS INC 21.12.78-US-971757

A97 (23.12.80) A23g-03/30

21.12.78 as 971757 (6pp478)

Calorie-free, carbohydrate-free, noncariogenic chewing gum consists of (by wt.) gum base, calorie-free sweetener, flavour, alpha-cellulose (I) as slip agent or texturizing agent and water, and 1-40% H2O. Pref. compsns. contain (by wt.) 5-30% esp. 0.3-3% calorie-free sweetener (particle size less than 100 microns for long-lasting sweetness), 15-20% gum base and 0.3-5% esp. 0.5-2.5% flavour.

The calorie-free, carbohydrate-free chewing gum contg. a sweetener, slip agent, and water has significantly higher cud vol., and does not adhere to natural teeth, etc. In addn., the gum has an acceptable soft texture.

GENO ★

D13

Gasified candy confection - consisting of granules of gasified candy dispersed in hard sorbitol binding matrix

GENERAL FOODS CORP 26.10.79-US-088482

(23.12.80) A23g-03

26.10.79 as 088482 (5pp478)

Confection consists of granules of gasified candy (contg. 0.5% of gas/g of candy) dispersed in a hard, binding matrix containing crystallised sorbitol (I).

Binding matrix has H2O-content less than 3% pref. 1-2% (less than that of gasified candy), and may also contain sweeteners other than (I) (dextrose, corn syrup, etc.).

Unlike known candies, the title gasified confection does not require water-resistant packaging. When dissolved in the mouth the confection provides a significantly prolonged popping or sizzling sensation as well as a freshening of the breath and a flavoured sweet effect.

UIIN- ★

D13

Food supplement prep'n. from vegetable pulp esp. sugar-beet pulp, washing, bleaching and drying

U & I INC 11.05.78-US-905059

(23.12.80) A23l-01/27

11.05.78 as 905059 (4pp955)

Water-extracted pulps of sugar beet, apples, citrus peels, beans, peas or turnips are contacted with an aq. bleach solution containing hydrogen peroxide, an alkali metal peroxide, ammonium persulphate, sulphur dioxide, sodium hydrosulphite, chlorine, sodium hypochlorite, chlorine and/or chlorine dioxide. They are then sepd. and dried. The prod. contains 4-8 wt. % water, 9 wt. % crude protein, 15-25 wt. % crude fibre, 60-70 wt. % non-protein nitrogen, 2.5-5 wt. % ash.

The prod. is bland, stable, and free flowing. It is useful as a food supplement in foods e.g. soups, sauces, gravies, dips, in high protein bread, batter, breaded prods., in dry instant mixes e.g. fruit juice, etc. It swells rapidly in aq. mixts.

PILL ★

D13

Method of dehydrating potatoes - including dividing potatoes into two groups separately treated prior to flaking process

PILLSBURY CO 11.10.79-US-083885

(23.12.80) A23l-01/21

11.10.79 as 083885 (9pp295)

A method for producing dehydrated potatoes involves cleaving the potatoes into two groups with the ratio of the first group to the second group being 25 : 75 to 75 : 25.

The first group of potatoes are sliced, cooked, riced, peeled, cooled to less than 115 deg.F. The second group of potatoes are peeled, sliced, blanched and cooled to less than 80 deg.F. They are then cooked, riced and cooled to less than 115 deg.F. The separately treated groups are finally combined and dehydrated to a moisture content of less than 9 wt. %.

The prod. has a taste and texture resembling that of mashed potatoes even after a storage period of about 18 months.

D13 01858 D/02 ★ US 4241-096
 W. ★ Cauliflower heads - by cutting culls while held by hold down
 conveyor then cutting to release curds
 HAW R A INC 15.03.79-US-020897 (25.07.77-US-818497)
 3.12.80) A23p-01
 79 as 020897 Div.ex 4176595 (5pp1358)

are cored by cutting the culls from the base of each head as it moves along a path while exerting a downward force on a differential zone of each head to prevent it moving out of the path, then removing the force and cutting the heads so that they break up into parts, these being collected separately from the culls. The zone is pref. circular and varies in height relative to a set tolerance as a function of head size. Cutting is pref. by rotary cutters. The parent patent claims the appts., in which the heads are placed in spiked cups on a conveyor and the force is applied by a down ring.

D13 01859 D/02 ★ US 4241-097
 Flavouring foodstuffs with coumarin substitutes - comprising 1,4-benzodioxan-2-one and hexa:hydro analogue
 NT FLAVORS & FRAGR INC 13.09.79-US-075071
 13 (23.12.80) A23l-01/22
 79 as 075071 (16pp367)

aroma or taste of foodstuffs is augmented or enhanced by adding 0.5-20 ppm of 1,4-benzodioxan-2-one (I) or hexahydro-1,4-benzodioxan-2-one (II). (I) can be prep'd. from catechol by reaction with bromoacetyl bromide in the presence of NEt₃ or by reaction with NaOH and then with ethyl chloroacetate. (II) can be prep'd. by reacting 1,2-cyclohexanediol with NaH and then with ethyl chloroacetate. (II) can be in cis or trans form. (I) and (II) are inexpensive replacements for coumarins, having sweet, green, fruity, coumarinic, marzipan-like aroma and flavour characteristics. (I) and (II) are used in perfumes, perfumed articles, cosmetics, foodstuffs, chewing gums, toothpastes, medicinal prods. and smoking tobacco.

D13 01860 D/02 ★ US 4241-098
 Flavouring foodstuffs with hexenol oxidn. prod. - contg. 3-hexenal, 2-hexenal, 3-hexenol and ester(s)
 NT FLAVORS & FRAGR INC 17.10.79-US-085707
 17 (23.12.80) A23l-01/22
 79 as 085707 (29pp367)

flavour or aroma of foodstuffs is augmented or enhanced by adding 0.05-500 ppm of a mixt. of cis-3-hexenal (I), trans-2-hexenal (II), cis-3-hexenyl formate (III), cis-3-hexenol (IV) and cis-3-hexenyl 3-hexenoate (V). The mixt. of (I)-(V) is prep'd. by reacting (IV) with pyridinium chlorochromate (VI) in a (IV):(VI) molar ratio of 5:2 in a solvent. The mixt. has an intense crushed green leaf flavour which is much longer lasting than that of (I) alone, and a powerful green fruity, spicy aroma with a more stable green note than (I).

M/ ★ D13 01861 D/02 ★ US 4241-099
 Prod. prep'd. with high-methoxy pectin - using glucono-delta-lactone as delayed-release acidulant
 HEMSTRAP J 26.02.79-US-015287
 3.12.80) A23l-01/06
 79 as 015287 (19pp367)

Prod. (e.g. confectionery jellies or table spreads) contg. more than 76 wt.% sugar solids are produced by gelling a pre-gelled pectin comprising an aq. sugar soln. contg. (a) 0.5-3 wt.%, based on sugar, or a high-methoxy pectin with a degree of methylation

(DM) of at least 45, and (b) 1-5 wt.%, based on total sugar, of glucono-delta-lactone (I). The pre-gelled pectin has a pH of 3.8-5.5.

Use of (I) as acidulant delays setting for a time sufficient to allow the pectin to be poured into a mould (at least 5 min.) High gel strengths can be achieved using low pectin concns.; premature setting before the pectin has reached its optimum pH is suppressed.

KIBU. D13 54986 B/30 = US 4241-100
 Soybean milk prodn. without beany flavour or bitterness - by grinding cooked beans with aq. sodium bi:carbonate (BR 2.8.77)
 KIBUN CO 21.07.75-JP-088441
 (23.12.80) *GB1549-206 + A23l-02/38

11.09.78 as 941408 (+ 13.7.76-US-704920) (3pp931)
 Soybean milk is produced by cooking unsoaked beans in an aq. medium at the b.pt. for 2-4 mins.; grinding the cooked beans in contact with 0.1-1% NaHCO₃ aq. soln. at more than 80 deg.C; then extracting protein and water-soluble components from the ground beans and removing all the solids from the slurry to yield the milk.

Pref. the aq. medium for cooking is a 0.1-1% NaHCO₃ aq. soln. The soybean milk prodn. has no undesirable beany flavour or bitterness, having a soft and pleasant feel to the tongue.

SCMZ D13 84392 C/48 = WP 8002-636
 Imitation cocoa powder prodn. from fine flour mixt. - with added fat, flavour and colouring
 SCM CORP 05.06.79-US-046156
 (11.12.80) *BE-884-374 + A23g-01

04.06.80 as U00735 (36pp597) (E) US4119740 GB2010657 US2774670 US3625710 US3639129 US3694232 US3840685 US3851072 US4076847 FR2049642 N(JP) E(AT CH DE FR GB LU NL SE)

(A) Imitation cocoa powder compsn. comprises (on a dry basis) 60-85% of a finely ground mixt. of neutral flours, which are degassed and/or defatted, in proportion to obtain contents of 40-65% carbohydrates, 1-10% fibres, 15-30% protein and 2-7% ash; and 1-25% fats, the remainder being water, flavouring and colouring sufficient to produce the flavour and colour of natural cocoa powder. The powder is prep'd. by dry mixing the fine flours, then mixing with water and colourant to form a paste which is extruded, dried and ground, followed by uniform application of fat and flavouring.

(B) A novel imitation cocoa base powder comprises the flours as above to give a content of 40-70% carbohydrates, 20-35% protein, 1-10% fibre, 2-7% ash and a natural fat content of less than 3% and a water content of less than 5%.

Prod. may replace natural cocoa up to 100% in compsns. using cocoa. It has the same taste and colour as natural cocoa with a similar water solubility.

See Also

D16 GB2050418 D23 J80048778

D14: FOODSTUFF MACHINERY

E. ★ D14 00886 D/02 ★ GB 1582-529
 Mixer for mixing food esp. marshmallow or foam plastic - includes a rotor interacting with bladed stators, made of flat stock
 AKES E T LTD 22.10.76-GB-044009
 31 J02 (07.01.81) B01f-07/02
 77 as ----- (7pp295)

Mixer comprises a rotor with axially extending blades which are digitated with blades extending from stators at each end of the rotor. The rotor blades are formed from flat stock which is pinned to create a comb-like blade which is secured into a radial pin in the rotor. The stator blade is similarly constructed. The rotor has several comb-like blades each of which has a triangular or parallelogram cross-section. Material to be mixed is introduced through the stator at one end of the apparatus and follows a tortuous path through the blades before leaving on the opposite side of the apparatus.

The apparatus mixes food esp. marshmallow. Milling the comb-like blades from flat stock is less expensive than milling the rotor and the solid.

XEDA- ★ D14 D/02 ★ IL --53-172
 Device for chemical or thermal treatment of vegetable and fruit prods. - packed in trays or containers
 XEDA INT SA 22.12.76-IT-012954
 P11 P41 Q34 (30.11.80) A01c-01 A23n-09 B03b-03 B65d-81/38

MAGE- ★ D14 01228 D/02 ★ NL 7904-454
 Washing plant for fumes from foodstuff smoking - is adapted for small businesses efficiently preventing any environmental nuisance
 MAGEVO BV 06.06.79-NL-004454
 J01 (09.12.80) B01d-47/06
 06.06.79 as 004454 (8pp1014)

The housing of a plant for cleaning flue gases originating in the smoking of foodstuffs, is formed by a number of columns arranged above a common water reservoir. The columns are connected by a gas duct and the fumes flow through the columns in sequence. Each column has a water feed line with one or more spray nozzles, and an overflow connecting to the reservoir is fitted at the bottom of each column.

For pref. concentrically in each column a housing is fitted. This

has a closed upper end and an open bottom end. A flue gas duct opens into each housing near to its closed end, and one or more spray nozzles are provided in each housing. The housings are installed in the lower half of the columns with the open under side close to the bottom.

Used to provide a compact, easily erected installation for the use of suppliers of foodstuffs who smoke their own produce. With the plant, the escape of foul-smelling fumes into the environment is prevented.

MURM = ★

D14

01325 D/02 ★ SU-733-610

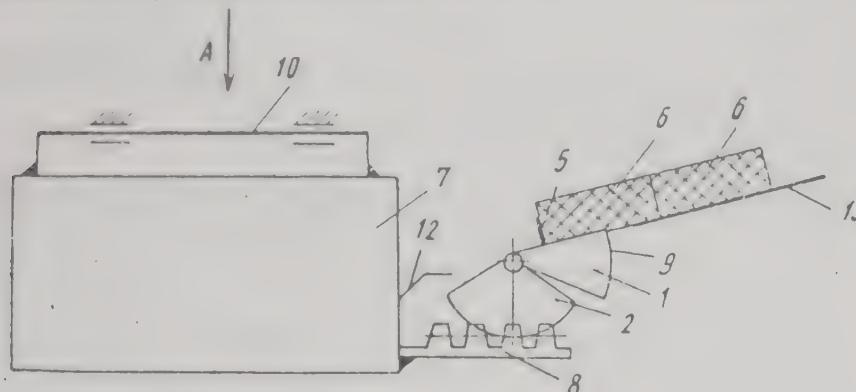
Frozen food blocks loader for glazing machine - has toothed segment acting in conjunction with rack to hold back blocks while first block slides in

MURMANSK GIPRORYBFL 05.01.78-SU-566061

(20.05.80) A23b-04/06

05.01.78 as 566061 (3pp29)

Loader for admitting blocks of frozen food products to a processing machine (e.g. for glazing), with elimination of manual handling and increase of operational safety, by using a support plate made as a segment capable of rotation. The teeth on the segment are acted on by a movable rack and there is a fixed stop to hold back each of the blocks in turn, while the previous block slides into the glazer.



MOGI = ★

D14

01327 D/02 ★ SU-733-613

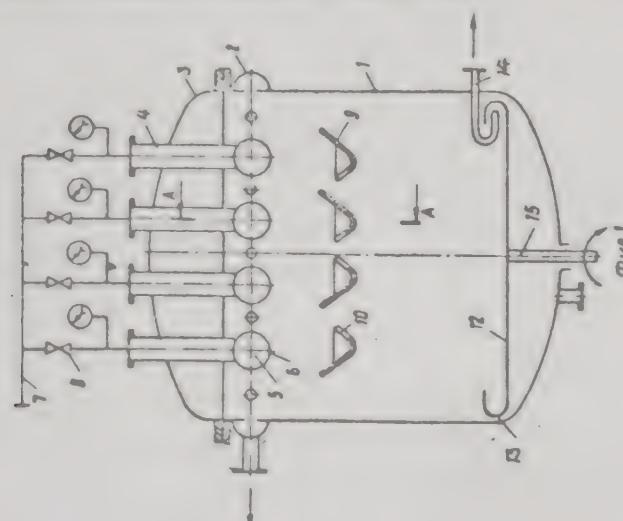
Liq. food products steriliser - has vertical chamber, steam manifold and perforated horizontal tubes from which product drips into heated boxes

MOGIL TECHN INST 29.12.77-SU-562698

(20.05.80) A23c-03/02

29.12.77 as 562698 (3pp29)

Liquid food products steriliser e.g. for cream pasteurisation in butter production has vertical cylindrical chamber, steam manifold, product supply pipes linked to horizontal tubes in the body, which have holes at the lower ends through which the product emerges. Heating is more uniform and sterilisation quality is increased, by fitting the chamber with boxes, each below a horizontal tube. A disc with bent-back upper edges rotates in the lower part. The upper edge of each box is serrated, on the side pointing towards the centre; this increases the bactericidal effect.



MITR/ ★

D14

01331 D/02 ★ SU-733-625

Conserve cans unloader and orienter - has rotating horizontal drum orienter with helical guides, and unloading hatch

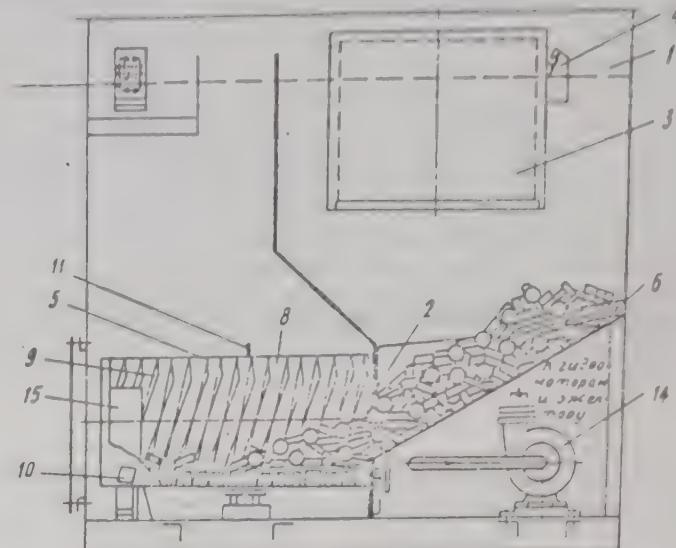
MITROVOL 28.12.77-SU-562678

Q31 (20.05.80) A23l-03 B65b-21/04

28.12.77 as 562678 (3pp29)

Conserve cans unloader, from autoclave baskets, with orientation prior to subsequent processing, with basket-tipping mechanism, orienter with helical guides, and conveyor. Orientation of cans with diameter/height ratio of more than unity is guaranteed, and damage is avoided, by making the orienter as a horizontal drum on rollers, with entrance and exit hatches. A limiter is placed in front of the exit hatch and the guides are fitted to the internal wall of the drum. The conveyor is a hydraulic lift which has a chute at the entrance

and wire runway at the exit. A stop ring on the outside of the prevents axial movement. Bul. 18/15.5.80.



VINN = ★

D14

01332 D/02 ★ SU

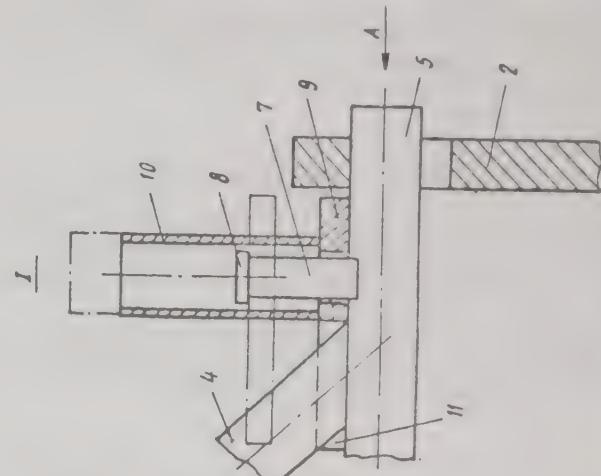
Basket for sterilising cans of preserve in autoclaves - has plate handle placed over vertical pins on lifting beam ends

VINNITSA TECHN DES 13.12.77-SU-555118

(20.05.80) A23l-03/10

13.12.77 as 555118 (3pp29)

Sterilisation basket, for putting cans of preserve in intermittently-operating autoclaves, has perforated casin lugs, and a bottom which can be moved, plus a removable beam to fasten the baskets to a hoist. The fixing of the beam is made by a pin which is fastened to each end of the beam. A plate, with a handle, is placed over the pins with limiters to prevent the plate moving.



KULA/ ★

D14

01333 D/02 ★ SU

Root vegetables washer - has loading hopper to which dirty material is pumped, moving chamber and concentric cylinders to vibration

KULAKOV V K 05.04.77-SU-476327

(15.05.80) A23n-13

05.04.77 as 476327 (4pp29)

Root vegetable washer, having increased productivity, has a frame with loading and unloading pipes, vibrator, settling tank and water-circulating pipelines. The loader/unloader are fastened to the frame and connected to the washing chamber by bags of material. Around that part of the chamber which abuts on the unloading pipe, there are several rows of holes to feed in water. The chamber base has holes to let the water out. The chamber consists of two concentric vessels on the outside of the chamber base. There is a hole in the inner container, to take away the water.

NONB = ★

D14

01334 D/02 ★ SU

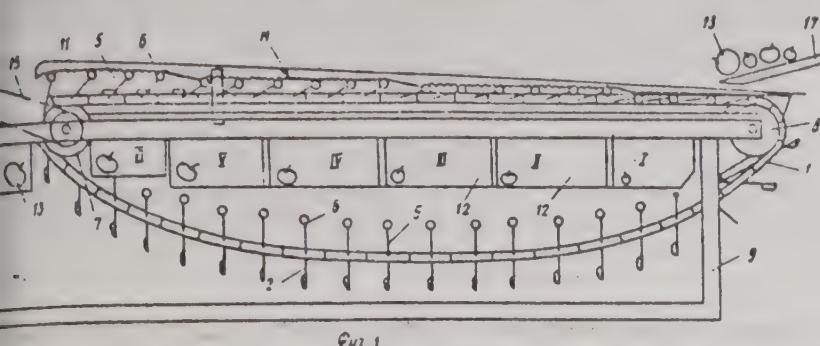
Fruit sorter working by size - has chain conveyor with side travelling in undulating guides, and series of curved and wavy rods

NON-BLACK AREA HORT 07.10.77-SU-534381

P43 (15.05.80) A23n-15 B07b-13/04

Sorter for fruit, according to size, with duplicate guides and conveyor to which the working parts are connected by arm rollers which can move along the guides. The calibrating process is speeded up by making the working parts as zigzag rods and bars, fastened along the rods so that the convexity of each is formed in the direction of the apexes of the zigzags. This shaped calibrating slits. The working surfaces of the guides have a wave-shape to impart an oscillating motion to the

lastic plugs are inserted into shaped slits. Bul.18/15.5.80.



D14 58456 B/32 = US 4238-998
mincing compressible viscous material, e.g. dough in extruder -
rotary gate having offset inlet and outlet and compacting

RRING M T A 24.01.78-GB-002770
+ P71 (16.12.80) *EP---3-394 + B30b-11/22

9 as 004379 (7pp1358)
ressible viscous foodstuff, e.g. dough or meat product, is
ned by introducing an unmeasured amount into a cylinder,
cting the set density with a piston, then discharging through
rusion orifice an amount to reduce chamber volume by a set
nt.

material is pref. introduced through an inlet with a rotary
having apertures mutually offset longitudinally of the axis of
on, and the inlet is connected to a feed hopper. The orifice pref.
as a rotary gate and both gates have apertures trailing edges
cutting edges. The piston rod pref. has a mechanical spring
located by a follower in a cam track rotated by a shaft driving
y gate gear.

D14 01412 D/02 ★ US 4239-175
for freezing liquid foodstuff - domed holder cap with straw
o draw off trapped liquid

TRAUBINGER P 19.11.79-US-095404
12.80) A23g-09/26

79 as 095404 (4pp1358)
ould comprises a cup to hold liquid and a cap with a domed
al part and a handle extending from the outer surface centre.
anchoring pin extends into the cup from the cap so that when the
ct is removed the cap forms a drip tray.
raw member communicates with the cap interior and extends
rly so that liquid trapped can be drawn off by the user. The
ref. has a rim to fit over the outer side surface of the cup, and
entral part has a centering flange to fit in the cup mouth and
ed by wall sections spaced end to end for flow between them.

SCHN/

D14

77233 B/43 = US 4240-591

Rotary food mincer with trap for metal foreign bodies - which are
centrifuged out of axial flow of prod.

SCHNELL K 22.06.78-DE-827369

P41 + P28 (23.12.80) *BE-877-150 B02c-18/30
22.06.79 as 051137 (4pp1358)

A mincing machine, e.g. for meat, includes a rotatable shaft
carrying at least one tool in a housing, and a centrifugal disc on the
shaft adjacent the mincing passage inlet upstream of the tool. The
disc periphery has inturned radially extending ends to define an
annular groove to collect hard objects before they can move into the
passage while having an axial passage for material to be minced.

The disc pref. has a number of openings for mincing material, and
an outer rim with perforated rear wall and partial radial wall
inwardly from the outer end of the rim, the groove being formed
between rim and rear wall. There are pref. a number of tool sets,
each with a cutter and perforated disc.

QUAK ★

D14

01713 D/02 ★ US 4240-779

Extruded food cutting rotating knife - with sharpened radial blades
making upward strokes

QUAKER OATS CO 23.08.78-US-935930 (31.10.75-US-627760)

P13 (23.12.80) A01j-21/02

23.08.78 as 935930 (5pp295)

Food prod. is extruded horizontally from a nozzle adjacent a cut-off
knife. The knife comprises a rotating hub with radial blades which
sweep upwards past the nozzle. This action moves the severed prod.
upwards and it is restrained by a shroud which surrounds the nozzle.
The shroud is vapour permeable and permits circulation of ambient
air to cool the prod. The appts. forms an Moving the knife upwards
increases the time the prod. is in the air and thus improves cooling.
It also reduces the velocity with which the prod. impinges on a
collection chute and thus reduces prod. damage.

NAKA- ★

D14

01857 D/02 ★ US 4241-095

Preventing spoilage of food, esp. soy sauce - using acetic acid and
sodium, potassium or calcium salt of organic acid

NAKANO VINEGAR KK 04.12.78-US-965911

(23.12.80) A21d-04

04.12.78 as 965911 (4pp955)

Spoilage of soy sauce is prevented by addn. before or after cooking,
of a preservative soln. contg. acetic acid and a Na, K or Ca salt of
acetic, malic, tartaric, citric or lactic acids. Sufficient is used to
provide a concn. of 0.02-0.2 wt.% acetic acid in the soy sauce. The
soln. contains the salt in up to six times the amt. of acetic acid.

The soln. does not impart a sour taste or greatly change the pH.

D15: WATER TREATMENT

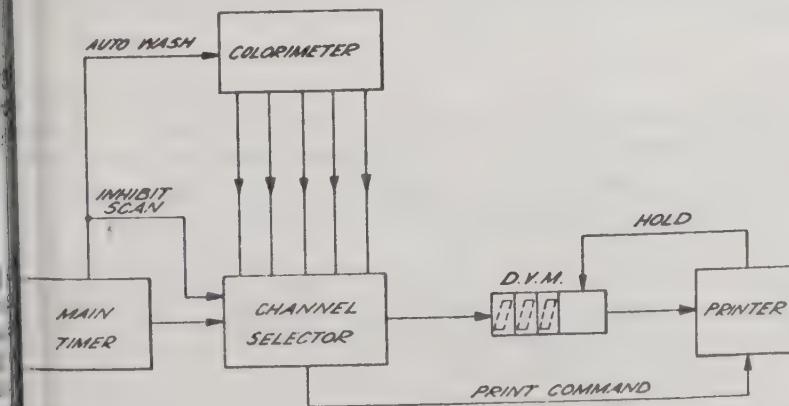
D15
ction of metallic ion concn. in aq. effluents
CORP 18.06.79-US-049703
.12.80) C02f-01/58

D/02 ★ BR 8002-821

D15 00863 D/02 ★ GB 1582-228
for continuous colorimetric analysis - uses air bubbles to
tion liq. into discrete samples into which complex reagent is
duced

BRITISH GAS CORP 12.12.75-GB-051025
S03 (07.01.81) G01n-01/28 G01n-21/27
77 as ----- (13pp67)

for continuous colorimetric analysis of components in a liq.
rises a photometric absorptiometer having a series of modules.



module has a flow cell which is supplied with an influent
of a coloured complex of the liq. to be analysed.

Air is introduced into the influent liq. stream to partition it into a
series of discrete liq. samples of preselected vol. interposed by air
bubbles. Complex reagent is introduced into the individual samples
to form a coloured complex of the liq. and the air then removed. The
flow cell is then illuminated and a photometer device detects light
passing through the cell to provide an optical density reading.

Used in analysis of boiler feed waters. Automatic appts. permits
continuous on-line analysis of liq.

HAWK ★

D15

00883 D/02 ★ GB 1582-520

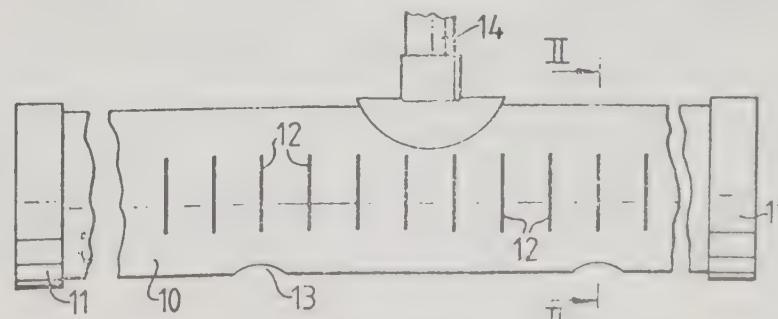
Sewage and industrial waste waters aeration - from horizontal
conduit with vertical slots extending for part of conduit diameter

HAWKER SIDDELEY WAT 24.05.78-GB-022081

(07.01.81) B01f-03/04 B01f-13/02

24.05.78 as 022081 (4pp295)

Distributor conduit extends horizontally in a liquid body. Pref. the
conduit is a circular plastic tube with vertical slots which discharge



air from the conduit into the liquid. Pref. the slots are 1.6 mm wide
and pref. their vertical height is 15-20% of the tube dia. Pref. the

distributor also has apertures in its underside to discharge solids or liquids which inadvertently enter the conduit.

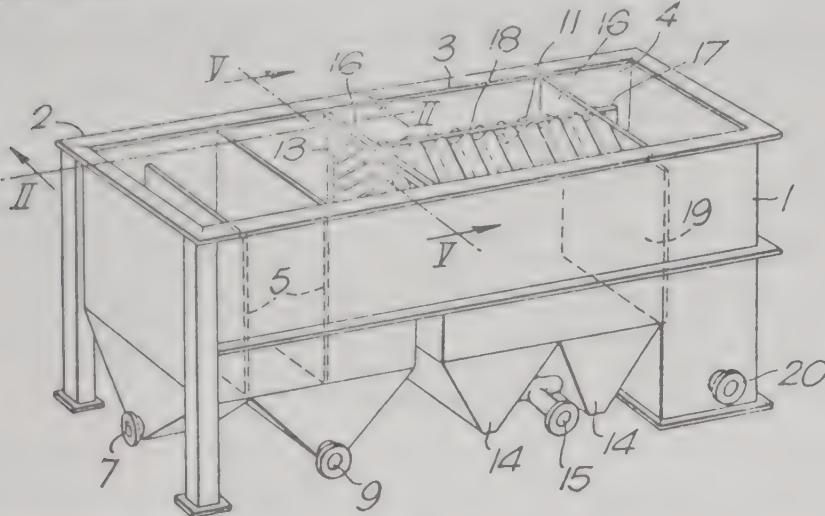
The distributor conduit (10) is pref. PVC, 110 mm diameter tube fabricated in 3m lengths. The slots (12) are cut in the sides of the conduit and additional apertures (13) are provided in the lower surface. In an embodiment the conduit is positioned in a tank to provide a circulation of the liquid during aeration.

PIEV ★ D15 00896 D/02 ★ GB 2050-185
Water etc. purification appts. - is divided into three sections comprising coalescence, sepn. and filtration zones

PIELKENROOD-VINITEX NV 02.06.79-GB-019281
(07.01.81) B01d-21 B01d-23/16

02.06.79 as 019281 (6pp295)

Appts. includes a tank divided into three compartments. The first compartment consists of a coalescence section connected to the liquid inlet and including a flow channel in which coalescence takes place as a consequence of transversal velocity gradients caused by wall friction.



Separation takes place in the second compartment and this includes a plate separator comprising sets of superposed inclined, parallel, corrugated plates, defining passages between them. The corrugations lie in the direction of inclination of the plates. A filtration chamber forms the third compartment, the outflow connected to a discharge duct.

The appts. is used to produce drinking water. It is small and can be transported to remote sites.

NENG- ★ D15 00898 D/02 ★ GB 2050-192
Deionisation of boiler condensate water - using pilot cation exchanger to determine sodium content

NORTHERN ENG IND LT 18.07.79-GB-024947
J01 (07.01.81) B01j-47/14 C02f-01/42
18.07.79 as 024947 (6pp367)

Method and appts for condensate polishing, ie. for deionising water from the condenser of a boiler prior to recycle, are claimed. The method comprises (a) diverting a pilot flow of water from the main service flow, (b) passing the pilot flow through a pilot amt of cation-exchange resin in the H form to remove at least NH₄ and Na ions, (c) monitoring the conductivity of the effluent from the pilot exchanger, (d) monitoring the rate of the main flow, (e) using the results of (c) and (d) to calculate the Na content of the main flow, (f) regenerating the service cation exchanger with an amt of regenerant calcd. in accordance with the Na content of the main flow, and (g) regenerating the service anion exchanger.

The method allows determin of the precise amt of regenerant required to remove practically all the Na from the service cation exchanger, thus preventing breakthrough of Na due to displacement by NH₄ ions when the boiler feed water is conditioned with ammonia.

KYUK ★ D15 00953 D/02 ★ J5 5075-710
Industrial waste waters filter - has upper chamber with net, middle one with granular bed, and lower adsorption chamber

KYUSHU SEKISUI IND 04.12.78-JP-150373
(07.06.80) B01d-15 B01d-23/10

04.12.78 as 150373 (4pp26)

Method and device are claimed for filtering waste waters drained from e.g. prodn. processes involving sedimentation. The waters contain impurities in solid and liquid phases.

To continuously filter off the impurities and purify the sepd. water in a single unit, the device comprises a vertical cylindrical column partitioned into three chambers: upper sepn. chamber for filtering off the solid impurities by tubular net, middle filter chamber for filtering off very fine impurities by a granular filtering bed, and lower chamber for adsorbing the residual impurities from the water flowing down in the column's chambers.

NISI

D15 02886 A/02
Chromium plating liq. regeneration - using a diaphragm cell, a cation exchange resin tower and a second electrolytic cell, NISSHIN STEEL KK 18.05.76-JP-056032
M14 (06.12.80) *J52139-633 C23f-07/26 C25d-21/18 + C25e-18.05.76 as 056032 (8pp53)

Chromium plating liq. for e.g. Zn-plated steel plate rusting-resistance, paint applicability and corrosion resistance coating is regenerated. Cr plating liq. having trivalent Cr increased is introduced from a reservoir to a cathode chamber of a diaphragm electrolytic cell to dialyse it for removing trivalent Cr ion until its concn. in chamber becomes about 0.0.3 g/l.

Then the liq. is passed through cation exchange resin to remove the Zn ion, while H₂SO₄ soln. is circulated from the cation exchange resin tower and another electrolytic cell so that Zn ion is extracted from the cation exchange resin with Zn ion as metallic Zn. (J52139633).

TEIJ D15

52984 W/32 =
Castable poly(N-acrylbenzimidazole amide) solns - for reverse osmosis membranes

TEIJIN KK 07.05.73-JP-049670
A88 J01 (A26) (09.12.80) *J50003-970 + B01d-13
07.05.73 as 049670 (8pp)

Selective permeable membranes are prep'd. by casting arylbenzimidazole amide) solns. In an example, anilinobenzoic acid and isophthaloyl chloride in methylpyrrolidone were heated at 120 deg. for 1.5 hr. to give (4-phenylene)bis(1-phenylbenzimidazole-5-carboxylic acid) (20 g) in 60 ml N-methylpyrrolidone at 150 deg. was treated with 13 g 4,4'-diphenylmethane diisocyanate over 15 mins. at same temp. for 3 hrs. and diluted with N-methylpyrrolidone soln. The 4,4'-diphenylmethane diisocyanate (4-phenylene)bis(1-phenylbenzimidazole-5-carboxylic acid) soln. (20 g) was mixed with 0.9 g LiCl, filtered through a pore size 5 microns, cast, dried at 130 deg. for 15 mins. in solvent 70%) and immersed in water to give 95 micromembrane for reverse osmosis.

4,4'-Diphenylmethane diisocyanate-isophthalic acid (4-phenylene)bis(1-phenylbenzimidazole-5-carboxylic acid) membrane was also prep'd. (J50003970).

MITR D15

46736 W/28 =
Semipermeable membranes of acrylonitrile polymer - treated with hydroxylamine to convert some of nitrile gps to amidoxime

IMITSUBISHI RAYON KK 17.05.73-JP-054927
A88 J01 (09.12.80) *J50003-972 + B01d-13
17.05.73 as 054927 (3pp)

Semipermeable membranes (water permeability 30-300 g sq. ft. day, NaCl removal efficiency up to 35%) of acrylonitrile polymer (at least 50% acrylonitrile) are treated with NaOH to convert at least 15 mole % nitrile gps. to amidoxime.

In an example, 98:7 acrylonitrile-vinyl acetate semipermeable membrane (water permeability 63.2 gallon per sq. ft. day, NaCl removal efficiency 20%) was immersed in NH₂OH at 60 deg.C for 150 mins. to give a membrane with water permeability 25.6 gallon per sq. ft. day and NaCl removal efficiency 37.6% in reverse osmosis. (J50003972).

OSMO- D15

55699 U/38 =
Solute concentration - using semipermeable membranes as a loop

OSMONICS INC (OSM) 15.06.72-US-263186
J01 T06 (09.12.80) *US3756-408 B01d-13
15.06.72 as 067011 (5pp)

A constant solute concentrate is reclaimed from a feed solution by a variable solute concn. The soln. passes through a semipermeable membranes. The solvent which is sepd. from the concentrate is removed from the systems.

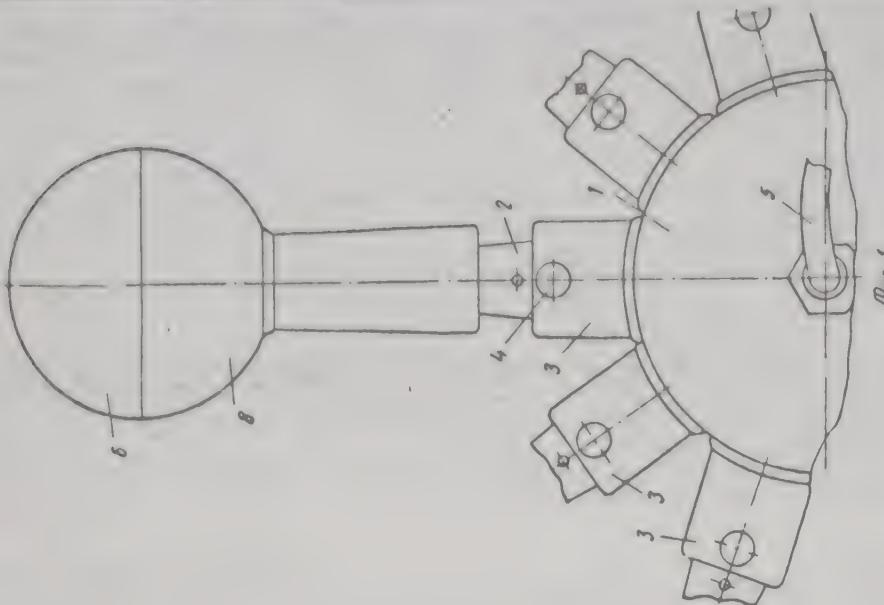
The concentrate is continuously recycled through the system. A sensing device indicates that it has reached the desired concentration, then opens a valve to remove the concentrate from the system. (J49052185).

EBAI ★ D15

01187 D/02 ★ J5 5075-710
Desalting device for liq. contg. suspended solids etc. - has a providing electrostatic field in pressure vessel, and semipermeable membrane

EBARA INFILCO KK 25.02.74-JP-022074
(09.12.80) B01d-13 C02f-01/44
25.02.74 as 022074 (3pp)

The device comprises a pressure vessel, means for providing an electrostatic field in the vessel, and semipermeable membranes disposed in the field to separate the liquid into the filtrate and concentrate. (J50115680).



ORON- D15 34542 W/21 = SU-733-521
Vertical electrolytic cell battery for water sterilisation - for drinking water, bathing pools, preventing clogging by insoluble matter

ORONZIO DE NORA IMP 30.10.73-IT-030709
J03 X25 (05.05.80) *DE2451-629 C25b-01/26 C25b-09

29.10.74 as 076951 3pp)

A vertical electrolytic device has a housing with a lower and upper inlet and outlet for the electrolyte, non-conducting partitions of a section corresponding to that of the housing and forming a series of cell units with provision for holding the electrodes on their upper and lower horizontal surfaces, bipolar, bimetallic electrodes-bonded possibly by a third metal and extending between the partitions at uniform pitch, the anode and cathode zones reaching the same distance, an arrangement in the partitioning elements permitting the passage of the electrolyte from one unit to the next higher, and arrangements for feeding electrical current to the device.

Direct flow through cell units prevents accumulation of insoluble matter-always a problem with sea water, and the gases produced accelerate the upward motion. Bul.17/5.5.80.

GLEZ/ ★ D15 01342 D/02 ★ SU-733-704
Suspensions and effluents clarifier - has two coaxial inverted cones inside cylindrical body with conical base with down-flowing pipes and flow deflectors

GLEZIN V I 09.11.77-SU-553414
(18.05.80) B01d-21/02 C02c-01/26

09.11.77 as 553414 4pp29)

Clarifier for effluents and technical suspensions, has vertical cylindrical body with conical base, inside which inverted cones are installed one above the other coaxially, with pipes fastened to their apexes. The supply pipe is disposed along the body axis and widens out at its lower end into an overflow chamber. There are conical deflectors and pipes to take away the slimes and the clear water. The process is intensified and regulation reliability is increased by adding cylindrical shells which extend upwards from the bases of the coaxial cones. The shell on the outer cone has a lid underneath which is a collection manifold.

JUTI/ D15 00282 B/01 = US 4239-493
Control of pH in continuous flow using hydrogen ion evaluation - with subsequent calculation of equilibrium value and a feedback value, the difference being used to control reagent feed

JUTILA P (NIEM) 07.06.77-FI-001810

J04 T06 (16.12.80) *DE2824-924 G05d-21/02 + G05b-13/02

07.06.78 as 913471 (6pp945)

Method of controlling pH in a continuous flow vessel supplied with process chemical and controlling chemical soln. involves measuring the pH at the vessel outlet. This is converted to the corresp. H-ion concn. value which is used in an equation, describing the dissociation equilibria in the soln. to determine a feedback quantity (x). A reference pH value is similarly converted to the corresp. H-ion concn. and used in the equation to determine a reference feedback quantity (y). A control deviation equal to the difference of x and y is then used to control the feed of control soln. Typically a linear controller and activator controlled thereby are used.

The process is accurate since linear control parameters are used and can be used for water aquisition and waste liq. treatment.

TORA D15 08848 B/05 #US 4239-545
Reverse osmosis membrane comprising cellulose deriv. - obtnd. from soln. contg. e.g. cellulose acetate butyrate) methyl or ethyl cellulose, organic solvent and tetra-carboxylic acid

TORAY IND INC 25.05.77-JP-059902 (10.08.78-US-932533)
A88 E17 J01 (A11 E15) (16.12.80) *J53144-883 + C081-01/12

10.08.78 as 932533 (5pp937)

A reverse osmosis membrane of cellulose deriv. is prepnd in a casting

soln. contg. cellulose deriv acid and an organic wa solvent.

The cellulose deriv is chosen from cellulose acetate acetates propionate, cellulose acetate butyrate, methyl or ethyl cellulose. The improvement comprises including in the soln a tetracarboxylic acid R(COOH)4, where R is a aliphatic or alicyclic organic radical of 2-10C atoms, propyl or butanetetracarboxylic acid at 1-20 pts wt per 10 pts wt of deriv. Further the casting soln also contains a monocarboxylic acid member at a mole fraction not more than 0.2 based on the total moles of member and tetracarboxylic acid. The dicarboxylic acid is maleic acid.

The membrane produced has no more than 0.2 voids per square mm, giving high durability besides a good separation characteristics, rate of water per and salt rejection.

AIRP D15 27724 C/16 = US 4239-545
Simultaneous black liquor oxidn. and concn. - with oxidn between evaporator effects, allowing recovery of heat as steam

AIR PRODUCTS & CHEM INC 02.10.78-US-947802

F09 (16.12.80) *EP---9-932 D21c-11/10

02.10.78 as 947802 (12pp1358)

Black liquor from wood pulping is oxidised with S-compounds in a multi-effect evaporation system. Heat energy is recovered for use in evaporation by subjecting the whole S of the liquor to oxidation, using high O2 content gas for oxidation, performing oxidation at superatmospheric pressure during through the evaporator or immediately after the last stage.

Oxidised liquor is flashed and the vapours returned to the evaporator to augment heating in one or more effects by condensation with vapour leaving an upstream effect, the effect being operating at higher pressure than that into which the liquor is first fed. C is pref. 225-400 deg.F with gas containing at least 95% O2.

LEMO/ ★ D15 01494 D/02 ★ US 4239-545
Distillation appts. with volatile pollutant removal - using a topped container receiving preheated water prior to heating

LEMOINE K D 27.11.79-US-097820 (12.06.78-US-914928)

J01 (16.12.80) B01d-03/42 C02f-01/04

27.11.79 as 097820 (+ 22.12.78-US-973237) (8pp295)

A distn. appts. includes a boiler with a bottom opening. Vapour from the boiler passes to a column which has an outlet near its top. It is a condenser adjacent the column which includes a liquid jacket surrounding a vapour channel. The top of the column is connected to the vapour column outlet, and the bottom to a liquid outlet.

A container open to the atmos. has a surface in heat-exchanging relationship with the interior of the vapour column. A tube interconnects the jacket outlet with the interior of the column which in turn supplies the boiler. An overflow tube is connected to the boiler bottom opening which extends upwardly above the boiler liq. level. A downwardly extending drain is connected to the overflow tube at the lower desired level of the boiler liq.

The appts. is used to produce pure water for human consumption.

MOBI D15 81145 C/46 = US 4239-545
Complex metal cyanide removal from industrial effluents - contact with activated sludge at acid pH before further waste processing

MOBIL OIL CORP 16.04.79-US-030418

H05 J01 M11 (16.12.80) *DE3014-678 C02f-01/28 + C02f-02

16.04.79 as 030418 (5pp936)

Refinery waste water facility is described for removing cyanides, oil, suspended solids and complex cyanides (III) and effect biological treatment before discharge.

Improvement comprises recovering activated sludge (II) from biological treatment stage and contacting (II) with waste water enriched with (III). (III) are removed by maintaining the pH in the range 3-6

Specifically the waste water with complex cyanides comprising a sour water prod stream of a petroleum refining operation is treated at least 1 industrial source such as electroplating, mfr, steel and coke prodn etc. Build up of cyanides is minimised.

FLUI- ★ D15 01505 D/02 ★ US 4239-545
Water treatment to remove hardness and sulphur cpds. - by through cation exchange resin particles in surface to surface

FLUID POWER RES INC 26.02.79-US-014826 (30.856168)

E36 (16.12.80) B01j-39

26.02.79 as 014826 (23pp295)

The water is passed through a bed of cation exchange resin particles with a size below 50 mesh measured on a dry basis. The bed of resin particles in surface contact with each other and in a tightly packed relationship.

The method is used in the treatment of water to remove possibly metals ions such as calcium and magnesium, and by the medium to remove chlorine, hydrogen sulphide, iron, bacteria, other taste and odour-forming contaminants.

D15 86113 A/48 = US 4239-622
 Selecting water esp. domestic and drinking water - using
 gen peroxide and chloramine
 TEROX CHEM LTD 27.05.77-GB-022597
 6 (E36) (16.12.80) *BE-867-397 C02f-01/50
 78 as 907018 (8pp936)
 supply is disinfected using a mixt. of 0.025-0.1ppm
 chloroamine (I) and 0.1-0.5ppm H₂O₂. Pref the wt. ratio of
 gen peroxide to (I) is at least 2:1 and/or not more than 50:1, esp
 20:1.
 comparatively long lasting residual bactericide is provided.

D15 39310 B/21 = US 4240-164
 for biological toilet - comprises a metal rod folded to give
 and journals
 LYPUR FORSALJNING 28.10.77-SE-012193
 28 (23.12.80) *DE2846-483 B01f-07/02 C05f-03/04 + A47k-11/02
 78 as 953369 (4pp1358)
 et system for biological degradation of excrement includes a
 tting vessel receiving excrement and degradation material and
 arging to a container over a sidewall top edge. Mixing is by a
 ble cultivator extending between the vessel sides and formed
 ped wire, pref. in a single piece.
 wire may be shaped into a deformed helix or into a zigzag
 guration and includes lengths extending from the axis of
 on sufficiently to be close to the vessel bottom during rotation.
 ultivator also lifts mixture to the discharge edge. The system is
 et within a toil fitted with a ventilating pipe and fan extending
 the container top.

E ★ D15 01666 D/02 ★ US 4240-267
 rage carbonation with liquid carbon dioxide supply - providing
 al cooling of compressed refrigerant to save energy
 OCA-COLA CO 04.12.78-US-966273
 75 (23.12.80) F25b-13 F25b-27/02
 78 as 966273 (9pp295)
 quid product to be carbonated is cooled by a refrigerant to
 ease the solubility of CO₂ gas. The refrigerant is recirculated
 a compressor and desuperheater before entering a
 rervoir. Liq. CO₂ is heated prior to feeding to the carbonator by
 ing through a heat exchanger supplied with refrigerant from the
 rpressor. This heat exchanger heats the CO₂ and cools the
 erant.
 ring winter conditions when the refrigerant load condition falls,
 O₂ liquid flows through an additional heat exchanger supplied
 refrigerant from the desuperheater.
 e appts. carbonates a beverage having cooling the liq. feed
 simultaneously heating the liq. CO₂ to liberate CO₂ gas. The
 ratus is efficient in energy utilisation and operates in both
 er and winter conditions of refrigeration load.

D15 11105 A/06 = US 4240-376
 ying water in fish tank - with adsorbent, e.g. zeolite for
 wing nitrogen cpds. and e.g. silica for water-soluble organic
 AHI KASEI KOGYO 08.06.76-JP-066814
 6 P14 (23.12.80) *J52154-792 A01k-63
 78 as 969132 (+ 01.06.77-US-802338) (7pp931)
 tic animals in a high density in environmental water are kept
 for a long time without feeding them by controlling the water
 and amts. of ammonia cpds., water-soluble organic cpds.,
 namic acid radicals and O₂ present.
 temp. is maintained at the lowest possible temp. for animal
 nce to 7 deg.C above this. Ammonia cpds. are controlled to a
 of 20 ppm or less, and water-soluble organic cpds. to 150 ppm
 s. The carbonic acid radicals are controlled to a concn. of 1,000
 r less, and O₂ to 3 ppm or more.
 mals e.g. shellfish, crustaceans and molluscs may be kept
 by the process at a density more than 200 kg. per cub. m in a
 er contg. environmental water.

D15 84401 A/47 = US 4240-578
 bowl centrifuge with differential speed screw - using torque
 ed to drive this as control parameter for flocculant addition
 JACKSON J F 04.05.77-GB-018612
 4 P41 (23.12.80) *DE2819-399 B04b-01/20 + B04b-09/10
 8 as 900215 (10pp1358)
 er centrifuge has a solid cylindrical bowl with liquids and
 outlets at opposite ends and holding a scroll conveyor driven
 motor at a different speed to the bowl, with the speed controlled
 n dependence on measured torque applied to the conveyor. A pump
 flocculant into mixt. inlet piping at a rate dependent on the
 or-bowl speed differential.
 motor is pref. hydraulic and has its body connected to the bowl
 ts output shaft to the conveyor, and the pump supplying
 ual fluid is controlled according to the pressure difference
 s the motor. The arrangement provides optimum flocculant
 ing.

METG **D15** 28060 B/15 = US 4240-808
 Processing waste waters from coal degasification or gasification -
 by solvent extn., stripping and separating ammonia and acid gases
 METALLGESELLSCHAFT AG 03.10.77-DE-744437
 02.10.78 as 948184 (6pp964)
 Aq. effluent liquors which become available as a result of the
 degasification in gasification of coal are processed by extracting
 organic impurities with an organic solvent which is insol. or has low
 solubility in water. The extract is produced to form raw phenol and
 fresh solvent. Residual solvent is removed from the aq. waste liquor
 by stripping with gases after the extracting step, scrubbing the
 gases to recover organic solvent, stripping ammonia from the aq.
 effluent liquor in a driving column, condensing over head prod. of
 driving off column, and recycling part of condensate to the top of the
 column.

The method involves (a) removing part of the overhead prod. of the
 driving off column as uncondensed vapours; (b) transferring the
 vapour to scrubbing column, in steps, condensing water, small amts.
 of NH₃ and all acid gases in the upper part of the column, and
 withdrawing pure NH₃ overhead; (c) withdrawing the condensate
 which contains all acid gases from the upper part of the scrubbing
 column, transferring to separate reboiler and heating; (d)
 withdrawing the sump prod. of the scrubbing column; transferring
 to pressurised de-acidification column, and withdrawing H₂S and
 CO₂ gas; and (e) recycling sump prod. to driving off column.

Improvement is that liq. consisting of cold water is fed at low rate
 to top of scrubbing column of (b). Perfect sepn. is achieved at
 relatively low expenditure.

STAM **D15** 02342 B/02 = US 4240-904
 Biological purification of waste water - in which surplus sludge is
 hydrolysed with a recoverable volatile base
 STAMICARBON BV 27.06.77-NL-007081
 (23.12.80) *EP----230 + C02f-11/14
 03.07.79 as 054434 Div.ex 4190528 (+ 20.6.78-US-917359) (6pp918)
 Biological purifcn. of waste water comprises hydrolysing a
 suspension of activated sludge formed during purifcn. in a basic
 medium at an elevated temp. The suspension pH is raised to 8-11 and
 the hydrolysis is carried out in the presence of ammonia or
 ammonium carbonate at 90-300 (pref. 90-200) deg.C. Hydrolysate
 obtd. contains at least one naturally occurring amino acid or
 oligopeptide. At least part of the hydrolysed sludge suspension is
 desorbed to expel the volatile base which is returned to adjust the pH
 and the hydrolysate is sepd. from the suspension.

The need for the presence of sodium ions is eliminated and the
 temp. and pH used do not result in racemisation of the amino acids
 and peptides.

UNIC **D15** 79266 C/45 = US 4240-905
 Aeration of liquid-solid mixture - by repeated shearing of rising
 bubbles by rotating arms
 UNION CARBIDE CORP 18.04.79-US-031296
 (23.12.80) *EP--17-989 C02f-03/20
 18.04.79 as 031296 (15pp1358)
 Pseudoplastic liquid-solid mixture with at least 2.5 wt.% solids,
 partic. wastewater sludge, is continuously aerated in a container
 with height:diameter ratio of 0.5-5.0 and a vertical rotatable shaft
 carrying two bubble shearing arms with arm frontal width W
 avoiding appreciable pumping of mixture and a W:arm length ratio
 less than 0.1, with maximum length at least 25% of container
 diameter.

Aerating gas bubbles are injected through the container base at
 multiple points with the outermost at least 40% of maximum arm
 length. The shaft is rotated to give constant turbulence level while
 keeping power density below 1.5 SHP per 1000 US gallon capacity.
 The arms produce minute gas bubbles and the mixture is retained
 for at least 15 min., and pref. at least 4 h.

EDMO/ ★ **D15** 01766 D/02 ★ US 4240-906
 Compsns. for clarifying liq. media esp. aquaria - contg. vermiculite
 particles, molecular sieves, and sodium chloride particles

EDMONDSON E L 28.09.79-US-079587

(23.12.80) C02f-03/06

28.09.79 as 079587 (4pp478)

Compsn. for enhancing the clarity of liq. media (e.g. in an aquarium)
 consists of (by vol.) at least 50% vermiculite particles (I), at least 5%
 particles of mol. sieves (II), and 0.1-10% NaCl particles.

The compsns. are harmless to plants, and any form of aquarium
 life; provide (through (I)) improved propagation of aerobic bacteria
 (to convert waste prods.); and (through (II)) keep the liq. clean, clear,
 odourless, and free of toxic pollutants. The compsns. may be used in
 both fresh or salt water aquaria; they also help fresh water tropical
 fish to ward off infectious diseases.

lting prepolymer, and (d) drying the granules by contacting with carrier (e.g. hot air) successively in a pneumatic conveyor, a one, a dilute-phase fluidised bed and a dense-phase fluidised process is esp. useful for producing water-soluble polymers; e.g. for use as coagulants, flocculants, thickeners, agents, flotation agents, etc. Such products have a higher degree of conversion, give more viscous solns. and have a lower moisture content than similar products produced by suspension

polymerisation.

Suitable monomers are acrylic and methacrylic acid and their salts, esters and amides, pref. used in liq. form or as aq. solns.

D16: FERMENTATION INDUSTRY

C ★ D16
biotic substance mfr.
BIOCHEMIE GMBH 29.03.78-AT-002193
304 (15.12.80) C12p-01/02

D/02 ★ AT 7802-193

CA- ★ D16 00811 D/02 ★ BE -884-876
microbial cells immobilisation - on a solid support without a
chemical binder, by conditioning them in water
UNIV CATHOLIQUE LOU 22.08.80-BE-884876
496 B04 (16.12.80) C12n
8.80 as 884876 (14pp520)

Spherical microbial cells are immobilised in a process in which they are 'conditioned' in an aq. medium and then concentrated with a support.

The process gives a high and even cover of the cells over the support in a single stage process without the use of chemical agents. The cells may then be used for the same purpose as untreated cells of the same type.

CA- ★ D16 00812 D/02 ★ BE -884-877
immobilisation of microbial cells - in which the cells or the support
given a colloidal coating
UNIV CATHOLIQUE LOU 22.08.80-BE-884877
496 B04 (16.12.80) C12n
8.80 as 884877 (15pp520)

The immobilisation of spherical microbial cells on a solid support, cells or the support are treated to form a single layer of colloidal particles on the surface, then the cells and the support are contacted. The cells are typically of *Saccharomyces cerevisiae* and these may be treated with independently produced colloidal particles which may be organic or of a metal oxide or hydroxide such as of aluminium or iron. Suitable organic particles are natural or synthetic latexes. The solid support may be a mineral or organic material, such as polyamide, polyester, polyolefin, vinyl cpd., a. silicates, aluminosilicates, metal oxides, metals, alloys etc. The process gives very even cover of cells on the support, is easy to carry out, and gives very good adhesion of cells on the support.

CA- ★ D16 00813 D/02 ★ BE -884-878
immobilisation of microbial cells - in which the cells or the support
treated with metal
UNIV CATHOLIQUE LOU 22.08.80-BE-884878
496 B04 (16.12.80) C12n
8.80 as 884878 (13pp520)

Microbial cells are immobilised in a process in which the cells and/or a solid support are treated with soln. contg. simple or polynuclear metal ions, and then the support and the cells are reacted together.

The microbial cells are typically of *Saccharomyces cerevisiae*. The support may be of a mineral or organic material such as silica, oxides, aluminosilicates, metal oxides, metals and their alloys, nitrates, polyesters, polyolefins, and vinyl cpds. These may be in physical form, such as granules, powders, sheets, films, fibres. The metal ions are usually obtd. from metal salts such as the chlorides, sulphates, nitrates, of magnesium, alkaline earth metals, aluminium or transition metals. The process is simple and effective, the prod. having the cells evenly attached to the support by a strong bond.

D16 D/02 ★ BR 7903-741
operative condenser for use in alcohol vapour distn. system
100% PROD ACUC(ALCO-) 11.06.79-BR-003741
1 Q78 (16.12.80) C12f-01 F28b-01/02

D16 D/02 ★ BR 8006-282
1. of microbial malic dehydrogenase
UNIV ESTADUAL 30.09.80-BR-006282
12.80) C12n-09/04

CHEV/ ★ D16 00841 D/02 ★ FR 2451-201
Extinguishing powder contg. vegetal prod. pref. of marine origin -
partic. calcium and magnesium contg. seaweed e.g. Lithothamnium
calcareum and Maerl

CHEVRIER A V 13.03.79-FR-006930
K01 P35 (14.11.80) A62d-01
13.03.79 as 006930 (6pp950)

A novel extinguishing powder contains a vegetal prod. which is pref. in the organic state, partic. one of marine origin. Partic. pref. is an alga, esp. a calco-magnesian alga, pref. originating from *Lithothamnium Calcareum* and/or *Maerl* calco-magnesian algae, having an extremely porous structure which exerts a thermo-regulating action by heat absorption.

The powder can be used, opt. complexed with other materials, for insulating, fireproofing, fire extinguishing or absorbing combustible liquids, opt. using a fire-extinguisher, in the compressed and/or granulated state. It does not have the drawbacks of inorganic extinguishers and combines good props. of hardness, density, stacking, dielectric and flow.

CNRs D16 75958 Y/43 = GB 1582-294
Antischistosomal immunological agent - contains schistosome extracts comprising target antigens of schistosomicidal medicaments, used to treat bilharziasis

INST NAT SANTE RECH MED (INSP) 29.06.76-FR-020687
B04 C03 (07.01.81) *BE-855-898 A61k-39 + A61k-45/06
27.06.77 as 026775 (9pp977)

Prepn. of anti schistosomal immunological agent from human or animal schistosomes comprises contacting a schistomicidal drug with a whole antigen extract from the schistosomes, whereby the drug is bound as a ligand to those antigens of the extract which are target antigens w.r.t. the schistomicidal drug, and opt. sepg. the target antigens from the drug.

Prior art chemotherapy is curative but does not prevent reinfection.

CHET D16 85018 Y/48 = GB 1582-303
Analysis of biological specimens by ionising heat decomposition prods. - with three-dimensional plotting of results giving reproducible results

CHEMETRON CORP 03.05.76-US-682781
B04 S03 S05 (V05) (07.01.81) *DE2718-880 G01n-27/62 G01n-33/48
+ C12q-01
25.04.77 as 017217 (44pp1358)

For classification and/or identification of an unknown biological specimen, a sample is subjected to programmed thermal degradation followed directly by ionisation and mass spectrometric analysis of the sequence of gaseous degradation prods., monitoring relative ion intensities produced for particular ion masses as a function of time or temp.

The evolution pattern of molecular fragments generated is used as the identification characteristic, by comparison with patterns for known specimens, partic. microorganisms or cellular tissue. Spectra are given in the specification for certain bacteria and lymphocytes.

CHET D16 85018 Y/48 = GB 1582-304
Analysis of biological specimens by ionising heat decomposition prods. - with three-dimensional plotting of results giving reproducible results

CHEMETRON CORP 14.03.77-US-777366
B04 S03 S05 (V05) (07.01.81) *DE2718-880 G01n-27/62 G01n-33/48
+ C12q-01
27.04.77 as 017560 (14pp1358)

Known or unknown prods. obtd. from thermal degradation of biological specimens with programmed heating are characterised by ionising to cause negligible fragmentation, detecting ion currents corresp. to different mass-to-charge ratios and recording the currents.

A three-dimensional array of currents corresp. to all detectable ratios in a range at successive instants during the heating sequence is recorded, with the dimensions representing currents, ratios and specimen temps. respectively. Representative data from the array are recorded for each specimen and compared with data from

known specimens. The method is partic. applicable to bacteria, yeasts, moulds, viruses, unicellular organisms, lymphocytes, leukocytes, phagocytes, erythrocytes and platelets.

GDAN D16 59473 Y/34 = GB 1582-378
(N)-Glucosyl derivs. of polyene macrolide antibiotics - such as polyfugin, amphotericin B and nystatin prep. by precipitation with aq. solutions and their (N)-methyl-glucamine salts

GDANSKA POLITECH (CHPR) 22.04.76-PL-188979

B05 C03 (07.01.81) *BE-853-893 A61k-31/71 C07g-11 C07h-17/08

12.04.77 as 015058 (7pp964)
The N-methylglucamine salt of an N-glycosyl deriv. of a polyene macrolide antibiotic is prep. by reacting a polyene macrolide antibiotic contg. at least one amino gp. with a saccharide selected from aldose monosaccharides, ketose monosaccharides, aldose oligosaccharides and ketose oligosaccharides in an organic solvent to form an N-glycosyl deriv. of the antibiotic; precipitating the N-glycosyl deriv. by addn. of water or an aq. soln. in an inorganic salt; recovering the pte., and reacting with N-methylglycamine. Pref. the inorganic salt is ammonium sulphate.

The salts exhibit antifungal antibiotic activity. They can be prep. without using costly or combustible solvents, and without sepn. of prod. from unreacted sugar.

BRPE D16 55487 A/31 = GB 1582-530
Polyploid asporogenous yeast prep. from a sporogenous yeast - by continuous culture in nutrient and carbon source

BRITISH PETROLEUM LTD 08.11.76-GB-046329
(07.01.81) *FR2370-093 + C12n-01/16 C12r-01/73

27.10.77 as ----- (4pp977)
Asporogenous polyploid yeast is produced by subjecting a sporogenous polyploid yeast to a period of continuous submerged cultivation in a broth comprising an aq. nutrient medium and a utilisable carbon source. The period is sufficient to give the prod. which is then isolated. Pref. the pH of the broth is 3-8.

No mutagenic agents are used in the process.

REAP- * D16 00926 D/02 ★ GB 2050-418
Identifying *Salmonella* and *Serratia* species - in food and faeces, by incubating with ester substrate and treating with diazonium salt

LAB DE RECH API 25.05.79-FR-014355
B04 E19 (D13) (07.01.81) C12q-01/44

08.05.80 as 015234 (5pp1251)
Salmonella and *Serratia* species are identified, and distinguished from *Proteus* and *Providencia*, by treatment with a diazonium salt (I) and, as enzyme substrate (II), an ester having a 7-10C aliphatic chain. Pref (II) are the heptanoate, caprylate, nonanoate or caprate derivs. of 2-naphthol, or esters derived from ortho- or para-nitrophenol, coumarin, indoxyl (opt. substd), 4-methylumbelliferone, fluorescein, phenolphthalein, estuletin, or hydroxyquinoline.

Pref (I) are Fast Blue BB, Fast Blue B, Fast Blue BR or Fast Violet B. Both reactions (ester hydrolysis and colour formation) are carried out in the same medium, and the test can be combined with detection of beta-glucosidase, beta-galactosidase or beta-glucuronidase to detect other species such as *Klebsiella*, *Enterobacter* or *Escherichia*.

The test is used to identify enterobacteria in foods and faeces. Only *Salmonella* and *Serratia* are able to hydrolyse (I) and thus develop a colour with (I); with *Providencia* or *Proteus* the natural pale yellow colour of (I) persists.

YEDA ★ D16 D/02 ★ IL-53-893
Device for harvesting cell cultures - from wells of a standard culture cell culture plate

YEDA RES & DEV CO LTD 26.01.78-IL-053893
(30.11.80) C12m-03

KIKK D16 26543 W/16 = J8 0048-793
Synthesis of cyclic adenine acid - cultures in medium contg. phosphoric acid or its salts with addn. of borate

KIKKOMAN CORP 30.03.73-JP-035687
B02 (08.12.80) *J49124-289 + C12p-19/32 C12r-01/15

KIKK D16 45146 W/27 = J8 0048-794
Cyclic uridylic acid - produced by *Corynebacterium*, *Arthrobacter* and *Microbacterium*

KIKKOMAN CORP 18.06.73-JP-067769
B02 (08.12.80) *J50018-691 + C12p-19/32 C12r-01/15

18.06.73 as 067769 (13pp)
Cyclic-3',5'-UMP (I) is produced by *Corynebacterium*, *Arthrobacter* and *Microbacterium*.

In an example, *C. murisepticum* (FERM-P 206), *Arthrobacter-11* (FERM-P 207), and *Microbacterium* No. 205 (FERM-P 106) were cultured on a medium (pH 8.0) contg. glucose 5, urea 0.5, KH₂PO₄ 0.5, K₂HPO₄ 0.5, MgSO₄·7H₂O 0.5, peptone 1, yeast extract 0.5, and ZnSO₄·7H₂O 0.01% added with 3 g/l of uracil (II) or uridine (III) at 30 deg.C for 70 hrs.

(I) prodns. were 107 and 99, 77 and 85, and 172 and 185 mg/l resp..

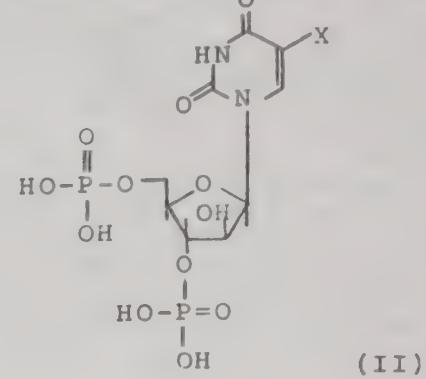
with addn. of (II) and (III) for *C. murisepticum*, *Arthrobacter-11*, *Microbacterium*, compared with 6, 5 and 7 mg/l resp. without of (II) or (III). (J50018691).

YAMS D16 06541 Y/04 = J8 0048-794
Arabinofuranosylpyrimidine monophosphoric acids - have antiviral and antiulcer activity

YAMASA SHOYU KK 02.06.75-JP-065353
B03 (08.12.80) *J51142-596 + C12p-19/32 C12r-01/80

02.06.75 as 065353 (5pp140)
Arabinofuranosylpyrimidine-3',5'-diphosphoric acid of formula (II) (X is H, halogen or alkyl) at a concn. of 5-30% is reacted with nucleotidase produced from mould belonging to *Penicillium*, *Penicillium citrinum*, *Penicillium steckii*, *Penicillium charlesii*, *Penicillium atramentosum*, *Penicillium canescens*, *Penicillium cyclopium*, etc. in an amt. 1-20 pref. 2-10 times, required to decompose an equimolar amt. of 3'-pyrimidine nucleotide w.r.t. arabinofuranosylpyrimidine-3',5'-diphosphoric acid at a pH of pref. 4.0-6.0, at 10-70, pref. 40-60 deg.C, for 1-48 hrs.

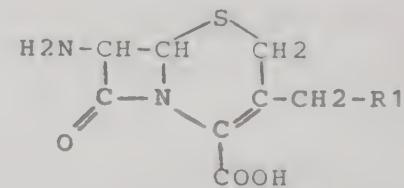
The 3'-monophosphoric acid linkage is selectively hydrolysed to obtain an arabinofuranosylcytosine-51-monophosphoric acid in high yield.



TAKE D16 68428 T/43 = J8 0048-794
Alpha-amino-cephalosporins prepn - by enzymatic reaction of alpha-amino-acids with 7 amino-cephem cpds

TAKEDA CHEMICAL IND KK 02.04.71-JP-020586
B02 (08.12.80) *DE2216-113 C12p-35/04 C12r-01/*

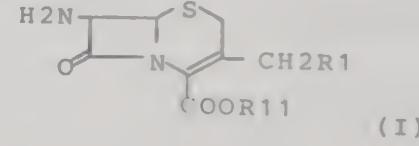
02.04.71 as 020586 (17pp)
Antibacterially active cephalosporins of formula (I) (where R is a membered cyclic hydrocarbon residue or a 5-membered heterocyclic gp. and R₁ is H or an organic residue linked to a methylene gp. via an O-, S- or N-atom) are produced in high yield by subjecting an acid H₂N-CHR-COOH or its reactive deriv. and amino-cephem cpd. of formula (II) to the enzymatic action of a microorganism of the genus *Mycoplana*, *Protaminobacter*, *Acetobacter*, *Xanthomonas*, *Pseudomonas*, *Aeromonas*, *Escherichia*, *Staphylococcus*, *Arthrobacter*, *Protocorynebacterium*, *Flavobacterium*, *Clostridium*, *Spirillum*, *Bacillus* which is capable of effecting the desired transformation. (J47025388).



TAKE D16 35402 V/19 = J8 0048-794
Cephalosporins prodn - by cultivating 7-aminocephem cpds alpha-amino acids

TAKEDA CHEMICAL IND KK 30.05.72-JP-053694
B02 (08.12.80) *J49013-393 + C12p-35/04 C12r-01/*

30.05.72 as 053694 (13pp)
Cephalosporins of formula (I) are produced from alpha-amino acids or their functional derivs. and 7-aminocephem cpds. with Me₂Si₂CO₂Et at position (I; where R₁ is H, organic residue with O, S, or N, or connective bond; R₁₁ is metal ion or residue easily subst. with R₁₁) under the existence of the culture broth, filtrate, cell extract or enzyme prepn. of *Xanthomonas*, *Acetobacter*, *Gluconobacter*, *Pseudomonas*, *Mycoplana*, *Protaminobacter* or *Aeromonas*. (J49013393).

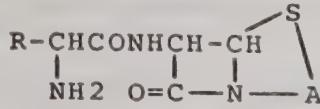


D16

26542 W/16 = J8 0048-799

inopenicillin and cephalosporin prodn from amino acids - by a culture of Achromobacter or Beneckea
 JOZO KK (TOYO) 31.03.73-JP-037116
 08.12.80) *J49124-288 + C12p-35/04 C12p-37/04 C12r-01/*
 037116 (8pp)

s of formula (I) (where R is cyclohex(adi)enyl and A is HCO or HOOC-C:C(CH₂X)CH₂; and X is H, O, S or an ond with N), are produced from an alpha-amino acid or deriv. and an amino cpd. of formula (I; R-CH(NH₂)CONH-catalysed by a culture broth or an enzyme prep. of bacter or Beneckea, e.g. Achromobacter B-402-2 (FERM-P 124288).



D16

22377 A/12 = J8 0048-800

c cephamycin prodn. - by culture of Streptomyces thermogenes microrganism

I CONFECTIONARY 05.06.74-JP-062856
 (08.12.80) *J50155-696 + C12p-35/08 C12r-01/46

as 062856 (6pp38)
 mycin, SF-1623, was produced from S. viridochromogenes (FERM-P 2288) by culturing on a medium contg. S-stein, Na₂S₂O₃, or alanine sulphodisulphane, inhibiting cephamycin A and B.

example, the microbe was aerobically cultured at 28 deg. for 20 l. medium (pH 6.5) contg. sucrose 2.0, soybean powder bean oil 2.0, fish powder 0.5, Na₂S₂O₃ 0.2, CaCO₃ 0.15, NaNO₃ CuSO₄·5H₂O 0.002% adding Na₂S₂O₃ at each 0.2% at 24 and of the cultivation. Pigments and cephamycin A and B in the filtrate were adsorbed on Amberlite XAD-2. The passed liq. treated with Amberlite IRA-68 (Cl⁻) and the adsorbed SF-1623 with 0.5 M NaCl. The SF-1623 was purified with active C AE-Sephadex A-25 (Cl⁻) chromatography. White powder of SF-1623 was obt. at 600 mg.

composed at 160.5 deg., had a specific rotation of + 36 deg., an cal analysis of C 37.62, H 4.56, N 7.36, O 35.25 and S 10.67%, and wt. of 550. It was soluble in water but insoluble in organic . It was positive in the iodine, ninhydrin, and KMnO₄ ns. It was effective against Vibrio, Alcaligenes, Salmonella, D155696).

D16

01190 D/02 ★ J8 0048-853

atic stirrer for brewing tank - comprises compressed air pipe, rotary shaft inserted into pipe and stirring J-shaped coupled with shaft

OKASEI KOGYO KK 01.08.74-JP-087494

2.80) A231-01/20 B01f-11 B01f-13/02

as 087494 (5pp)

for automatically stirring a brewing tank comprises a fixed r feeding compressed air, rotary shaft inserted into the pipe, rring J-shaped pipe coupled with the shaft and mounted on the end of the fixed pipe to turn the lower end of the stirring pipe etting the air. (J51017068).

D16

82715 C/47 #SE 7903-978

peat processing for combustion - by adding microorganism and rotting before briquetting

BR WEISS KG 30.04.79-DE-917459 (07.05.79-SE-003978)

(08.12.80) *DE2917-459 + C10f-05

9 003978 (1pp1161)

of peat for energy prodn. involves peat contg. water being d with a substratum mixed with micro-organisms, mycetes and fungi. The mixture thus formed is subjected to c rotting for a maximum of seven days, after which it is d to form briquettes. The briquettes are then fed to a storage or directly to the location where they are burnt for energy

substratum used is pref. a fresh compost from a biological ludge rotting installation.

D16

01535 D/02 ★ US 4239-690

ide polylactone(s) Grahamimycin(s) A and B - are useful as spectrum antimicrobials esp. for wound treatment
 SHINGTON STATE UN 22.10.79-US-087177 (01.03.78-US-92)

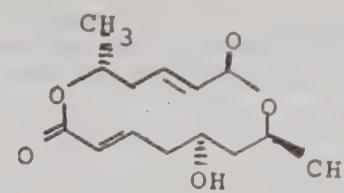
C02 · (16.12.80) C07d-321

as 087177 Div.ex.4220718 (13pp1248)

ide polylactones Grahamimycin A of formula (I) and its and Grahamimycin B are new. The polylactones are prep. tivation of Cytospora sp. ATCC 20502 in a nutrient medium, ed by extrn. and sepn.

te polylactones are broad-spectrum antimicrobials esp. active t Gram-positive and -negative bacteria, cyanobacteria, green

algae and fungi, and are esp. useful for topical treatment of wounds.



UNIW ★

D16

01549 D/02 ★ US 4239-714

Modifying pore size distribution of microporous sepn. medium - by immobilising a pore blocking agent of known molecular size in the pores

UNIV OF WASHINGTON 15.11.78-US-960745
 A96 J01 (16.12.80) B29d-27

15.11.78 as 960745 (6pp1302)

The pore size distribution of a microporous sepn medium (I) is modified by filling its pores with a volatile liq. A controlled amt of the volatile liq is evaporated to lower the level of the liq within the pores to below the bulk surface of (I) and thereby form voids at the entrances to the pores.

A conc. soln of a pore blocking agent is applied to the bulk surface of (I). The pore blocking agent is insoluble in the volatile liq and capable of being insolubilised in its soln. Its molecular size distribution has a predetermined lower limit so that it only enters pores larger than that. Excess pore blocking agent is removed from the surface of (I); that which remains is insolubilised to immobilise it in the pores.

The pore blocking agent obstructs the entrances to all pores larger than a certain size so that (I) has a sharp cut-off in the max molecular size it passes. (I) can be a polymeric membrane or chromatographic gel used to separate proteins, enzymes, viruses and immunological active fragments by ultrafiltration, dialysis, electrodialysis, electrophoresis or gel permeation or gel exclusion chromatography.

PENI- ★

D16

01564 D/02 ★ US 4239-745

Rapid and sensitive detection of antibiotics in liquids - by incubation with tagged antibiotic and microorganism cells

PENICILLIN ASSAYS 22.11.78-US-963146 (21.11.77-US-853541)
 B04 K08 S03 Q34 (S05 X25) (16.12.80) A61k-43 B65d-81/32 G01n-33/16

22.11.78 as 963146 (+ 21.11.77-US-853541) (8pp1248)

Detection of an antibiotic (I) in a liq. sample involves first incubating the sample with cells of a micro-organism that is sensitive to (I) and has receptor sites capable of binding to (I). Next incubating the mixt. with a tagged antibiotic to bind with the receptor sites and sepg. the cells from the liq. Finally, measuring the tagged antibiotic associated with either the sepd. cells or the liq. and comparing the results with a standard.

The procedure is rapid and sensitive (down to 0.001 i.u. of penicillin per ml test soln. can be detected in less than 10 mins.) and is useful for detection of (I) in milk, body fluids, meat extracts, fermentation broths etc.

USGO

D16

79089 B/43 = US 4239-749

Neisseria gonorrhoeae vaccine - prepd. from principal outer protein material isolated from gonococci

US GOVERNMENT (USDC) 23.03.78-US-889343 (27.09.79-US-079556)

B04 (16.12.80) *WP7900-823 A61k-39/02

27.09.79 as 079556 (4pp954)

Neisseria gonorrhoeae vaccine is prepd. from the principal outer protein isolated from gonococci. POMP antigen free of contaminants toxic to humans but having the ability to elicit a bactericidal response in humans has subunits of 34,000-39,000 Daltons mol.wt., contains hydrophobic and hydrophilic gps., and has a 4 wt.% carbohydrate and 96 wt.% protein content.

The antigen is not opsonic and vaccine contg. 5-8 POMP antigens affords a broad protection against infection by a large number of different N.g. strains.

LEPE

D16

72165 X/39 = US 4239-751

Teichomycins A, and A2 prepn. from Actinoplanes teichomyceticus - with activity against bacteria which are resistant to commonly-used antibiotics

GRUPPO LEPETIT SPA 05.03.75-GB-009057

B04 (16.12.80) *BE-839-259 A61k-35

16.04.79 as 030492 (+ 27.2.76, 1.11.77-US-661910, 847641) (12pp954)

Teichomycin A2(I) of m.pt. 260 deg.C and elemental analysis 54.2%C, 5.7%H, 6.8%N, 3.3%Cl and 30%O is claimed. Spectral data is also claimed. (I) is soluble in aq. NaHCO₃, alkali hydroxides, methanol-water mixt. and partially sol. in (m)ethanol, but insoluble in oil mineral acids and non-polar organic solvents.

(I) has a pKa of 4.9 with equiv. wt. of 1170. Chromatographic (tlc) Rf values are also given. Teichomycin A1 and A3 are claimed.

These antibiotic substances are obt. by cultivation of strain Actinoplanes teichomyceticus nov.sp. ATCC31121, and can be used as

mycelium and washing to remove excess (II). Product is esp. useful for hydrolysing raffinose to D-galactose and in beet molasses. It retains high activity over long periods (e.g. 2-3 weeks).

D16 48398 C/28 = US 4241-186
f nutrient substrates contg. low methoxy pectin - which is
th polyvalent metal cation
IRON INC 18.12.78-US-970347
80) *DE2950-776 C12n-01
as 970347 (5pp931)

biological growth medium of pH 4-9 is prep'd. in a culture container, and contains 10-30 g. of medium contg. a low methyl pectin material of less than 7% methoxyl content as the gelling agent.

method comprises introducing a predetermined amt. of ions onto an absorbent support material which is then in the container, then combining the medium and calcium to produce gelling.

method uses inexpensive and readily available materials, and require the temp. of the medium to be elevated.

D16 01903 D/02 ★ US 4241-187
for culturing biological cells and tissues - using perfused
nutrient using microporous membrane

OVERNMENT 27.03.79-US-024247

80) C12m-03

as 024247 (7pp295)

al cells and tissues are cultured using perfused blood as the source. The appts. used includes a blood inlet and outlet, situated between them, a pair of culture chambers. Each chamber is formed between the wall of a housing and a porous membrane.

or tissues are introduced to the chambers. The membrane is able to plasma solutes and cell products, and impermeable to cellular components. A blood flow passageway is maintained between the appts. external to the culture chambers, but in contact with the membrane.

ppts. may be used in vaccine prodn. and for the in vitro testing of potential anti-cancer agents prior to in vivo testing in laboratory test animals. The appts. can support high density cell tissue growths. There is a high linear velocity flow of the blood to avoid thrombosis.

D16 01904 D/02 ★ US 4241-188
organisms culture bottle with stopper lock - allowing stopper
sufficiently to vent bottle interior

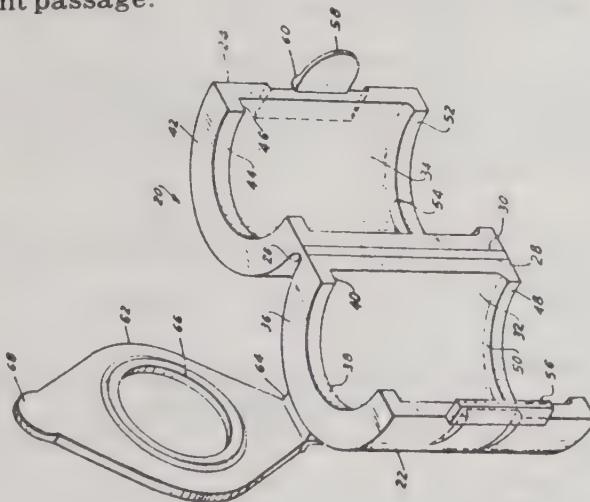
TTON DICKINSON CO 09.10.79-US-082616

80) C12m-01/24

as 082616 (6pp1358)

has a neck with a radial annular lip, a stopper in the neck and a stopper lock movably mounted on the neck and including side flanges between upper and lower inward flanges to engage the stopper surface and lip lower surface respectively. Flange spacing allows the stopper to rise sufficiently to vent the bottle interior under pressure.

ock is movable along the neck between positions engaging the neck and lip, and is pref. an integral plastics moulding with a pair of semi-cylindrical halves with fasteners and a hinged cover which can snap fit within the aperture formed by the upper flange. The upper is pref. slit diametrically for part height from the base to provide a vent passage.



D16 90583 C/51 = WP 8002-694
organism culturing tube - with stopper moving axially under
ssure to expose vent aperture

RUMO CORP 01.04.80-JP-042163 (04.06.79-JP-069713)

83 (11.12.80) *EP-19-940 B011-03 C12m-01/24 + B65d-51/16

as J00120 (29pp295) (J) J37015499 J53026480 J49073491 N(AU)

A microorganism culturing tube includes a culture medium which is hermetically sealed within the tube by a stopper after inoculation. The stopper can move axially in response to positive pressure inside the tube and after a predetermined movement the gas is vented through an aperture which becomes uncovered. The stopper has an annular groove which receives a bead surrounding the mouth of the culture tube and serving to hold the stopper in its sealing position. An additional groove is provided in the stopper beyond the vent aperture and prevents the stopper from being blown off from the tube if excessively high pressures develop.

The tube may be used for the anaerobic culture of microorganisms and vents the tube if a high pressure is developed. The tube can also be used for aerobic culturing by partially inserting the stopper so that the aperture remains exposed.

MAUR- ★

D16

Edible dyes with brown to black colour - prep'd. by enzyme treatment of roasted malted cereals, esp. barley

MAURI BROS & THOMSO(PARK) 04.06.79-AU-009049

(11.12.80) A231-01/27 C09b-61 C12p-01

03.06.80 as AU0020 (18pp513) (E) AU---4080 AU--17689 AU--10868 AU--47930 AU--64300 AU--49162 AU--17264 US3353960 US3594179 US3711292 US3716365 GB1303644 GB1307069 GB1403391 GB1442402 GB1474807 CA-975313 DE1517864 DE2325547 SU-506844 1.Jnl.Ref N(AU DK JP) E(CH DE FR GB JA US)

Edible colourants (I) are made by first digesting a roasted malted cereal in water using at least one protease enzyme and at least one carbohydrase enzyme, followed by sepn. of an aq. extract contg. the colourant. The extract may be concentrated or dried to give a conc. extract.

Products (I) contg. less than 100 mg/kg 4-methyl-imidazole (II) are new. (I) are dark brown to black prods. which are useful substitutes for ammonia process caramel without having the high (II) contents of the latter..

(I) are useful for colouring foodstuffs, beverages, pharmaceuticals, toiletries, etc.

AHSC ★

D16

Substrates for turbidimetric lipase assay - comprising lyophilised emulsion of tri:glyceride, buffer, surfactant and bulking agent

AMER HOSPITAL SUPPL CORP 06.05.80-EP-301476 (04.06.79-US-045467)

A96 B04 S03 (11.12.80) C09k-03 C12q-01/44 G01n-33/54

13.05.80 as U00574 (14pp367) (E) US3917515 US3689364 US3986930 US4115313 DE1961983 US4140579 N(DK JA) E(CH DE FR GB NL SE) Substrate for use in the turbidimetric assay of lipase comprises (a) a lyophilised emulsion of 0.5-5 wt. % of a lipase-hydrolysable triglyceride, (b) a buffer to give pH 7-10, (c) 10-40 wt. % of a surfactant and (d) 20-60 wt. % of a bulking agent, e.g. polyvinyl pyrrolidone..

Determin. of lipase concn. in blood and other biological fluids is useful in diagnosis of pancreatic dysfunction. The substrate emulsions are stable and reproducible, and provide rapid and accurate assays.

RAPI- ★

D16

Ultra-sensitive enzymatic radioimmunoassay method - involving reaction of enzyme-labelled antigen antibody complex with radio-labelled indicator

RAPIDEX LTD 31.05.79-US-044260

B04 K08 S03 (11.12.80) A61k-43 G01n-33/48

19.05.80 as U00619 (43pp367) (E) US3654090 US3791932 US3839153 US3850752 US3879262 US4016043 US4193982 USRE29169 6.Jnl.Ref N(AU DK JP NO SU) E(AT CH DE FR GB LU NL SE)

Quantitative determin. of an immunoassay reactant (antigen or antibody) comprises (a) preparing a solid substrate, (b) selectively adhering the reactant to the substrate, (c) binding an enzyme-conjugated antibody to the reactant, (d) reacting a radio-labelled indicator with the enzyme-conjugated antibody, (e) separating radio-labelled product(s) from unreacted indicator, and (f) measuring the radioactivity of the radio-labelled product(s)..

The method is 1000 times more sensitive than radioimmunoassay (RIA) and enzyme immunoassay (EIA) in detecting specific antigens (e.g. cholera toxin and human rotavirus). It can thus be used for earlier diagnosis of disease or for determin. of antigens which may be present in amts. not detectable by RIA or EIA (e.g. carcinogen-DNA adducts and hormone releasing factors).

CIBA

D16

Cultures of *Myxococcus fulvus* and its extracts - with antibacterial activity against Gram positive species

CIBA GEIGY AG (GBFB-AUGU) 13.06.79-DE-924006

B04 (24.12.80) *DE2924-006 A61k-35/74 C07g-11 C12p-01/04 C12r-01/* + C12p-21

12.06.80 as CH0070 (26pp1251) (G) WP8000573 2.Jnl.Ref N(AU DK JP) US)

A novel culture broth is obtd. by submerged, aerobic cultivation of *Myxococcus fulvus* DSM 1525 nov.spec. on an aq. medium contg.

carbon and nitrogen sources and mineral salts at 15-40 (pref. 25-35) deg.C.

Also new are prods. obt. by extracting (a) the harvested cells with a mixt. of water and polar organic solvent (I), or (b) the sepd. culture liq. with a polar organic solvent (II) having limited miscibility with water. Mixtures of active ingredients obt. from the extracts by treatment with anion exchanger, chromatography on alumina, then freeze-drying are also claimed.

These mixts. can be resolved into 3 individual components all with mol.wt. 1100 or less and all contg. a peptide fragment with Arg:Ala:Val ratio 1:2:3.

The active ingredients are antibacterials effective against Gram-positive species, e.g. the mixt. has min. inhibiting concn. (microg./ml.) of Bacillus subtilis and Staph. aureus 1; E. coli K12 and Pseudomonas fluorescens 30; Schizosaccharomyces pombe about 250.

JOHN- D16 77096 C/44 = WP 8002-849
Electrical detection of bacteria - requires measurement of current when voltage pulse is applied to electro-analytical cell

JOHNSTON LABS INC 18.06.79-US-049561
J04 S03 (S05) (24.12.80) *BE-883-881 + C12q-01/04 G01n-27/26
18.06.80 as U00755 (72pp1055) (E) US2913386 US3282803 US3403081
US3405030 US3506544 US3743581 US3765841 US3838034 US3857771
US4009078 US4085009 US4115230 AU-231262 DD-129579 DE2627633
LE2747033.5. Jnl. Ref N(AU JP) E(DE FR GB SE)

The detection of micro organisms indicates that a substance is contaminated. This is determined by use of an electro analytical cell in series with constant voltage pulses from which a decreasing current indicates presence of micro organisms.

The potential on a particular electroanalytical cell is measured via operational amplifiers when selected by a processor system. The output of one amplifier provides compensation for the effect of incubation of the microbes and is applied via an A/D converter to the processor.

When the relay is closed, a positive voltage pulse is applied to a unity gain operational amplifier and hence to the cell to a current to circulate. This current is sensed by an operational amplifier connected as a current to voltage converter to provide input to the processor.

D17: SUGAR; STARCH

FIVE ★ D17 00844 D/02 ★ FR 2451-225
Continuous centrifugation plant - comprises rotary baskets with liq. collectors in single receptacle with removable partitions for isolating individual baskets

FIVES-CAIL BABCOCK 13.03.79-FR-006324
J01 P41 (14.11.80) B04b-03 B04b-05/10 C13f-01/06

13.03.79 as 006324 (8pp1192)
Plant comprises a number of rotary baskets of vertical axis receiving the product to be centrifuged and provided with a screen through which the liq. phase passes. The liq. phase is recovered in a collector surrounding the basket. The solid particles slide over the screen and are ejected at its upper end. The baskets are placed in a single receptacle and provided with removable partitions allowing each basket to be isolated. The partitions are withdrawn in normal operation.

The space taken up is less than in the case of existing centrifuges of this type, used in e.g. the sugar industry and in which the basket is placed in a large vessel so that the particles ejected from the basket are slowed down by friction with the air before striking the wall of the container and are not broken.

NIPB D17 76406 X/41 = J8 0049-
Gypsum from lime flue gas - and ion exchanger regeneration wa
solns

NIPPON BEET SUGAR KK 24.10.73-JP-118954
E33 J01 L02 (E36) (09.12.80) *J50068-998 + C01f-11/46
24.10.73 as 118954 (2pp)

Lime cake is dispersed in an ion exchange resin reused to treat flue gas contg. SO₂ to form gypsum.

In an example 10.5 kg lime cake contg. 22.4% CaO and 4.1% organic material was added to 1.4 cubic metres of a waste soln. for ion exchanger regeneration contg. K₂SO₄ 2.5, Na₂SO₄ 1.2, and organic materials 1.84% at pH 3.4, such that the pH of the mixt. was 4.5-4.8 during treatment of flue gas contg. 0.1 vol% SO₂ and 0.005% SO₃ at 210 deg. At pH 4.8, 100g. cationic surfactant was added to the mixt. and crude gypsum was removed from the bottom, filtered and washed to form 98.4% pure gypsum. Lime cake, waste from sugar-mfg. plant, was dispersed in spent H₂SO₄ soln. for regeneration of cationic exchange resin used for desalting sugar soln. and then a SO₂-contg. flue gas was blown into the disperser under acidic conditions to obtain gypsum. (J50068998)

FISC/ D17 40962 B/22 = US 4240-
Absorbents for oil comprising cellulosic fibres - esp. de-sugar
bagasse fibres

FISCHER K O P 23.10.78-US-954001
H03 J01 (H06) (23.12.80) *EP---2-070 + C10I-01/04
23.10.78 as 954001 (6pp924)

Oil is absorbed by spreading on the oil an absorbent comprising about 97 wt.% oleophilic, hydrophobic sugar-free bagasse, and about 3 wt.% water, capable of taking-up an amt. of oil equalling 15 times its wt.

Pref. the absorbent is in the form of fibres having length 2-3 m. capable of taking-up an amt. of oil equalling 20-27 times its wt. Alternatively the absorbent is used in granular form of size approx. 10 microns, taking-up up to 16 times its wt. The resulting oil saturated absorbent is useful as a fuel.

GRAI ★ D17 01900 D/02 ★ US 4241-
Liquefaction of high solids starch pastes - at high temps., using
infusion of malted cereal grain

GRAIN PROCESSING CORP 30.04.79-US-034333
(23.12.80) C12p-19/22
30.04.79 as 034333 (5pp478)

Starch (I) is liquefied as follows: an infusion of a malted cereal grain (II) is added to (I) paste at above 75 deg.C., and the mixt. is heated above 75 deg.C until the (I) paste is liquefied to viscosity not more than 1500 centipoise.

Using (II) as a source of enzymes allows high solids content pastes to be liquefied at high temps. (so that (I) slurries may be cooked and liquefied continuously). In addn., the set-back and retrogradation which normally occur on cooling are reduced to min., and amylose-lipid complex formation is prevented. The process is useful in the brewing industry, and in the prepn. of breakfast cereals, etc.

See Also

D13 US4239922

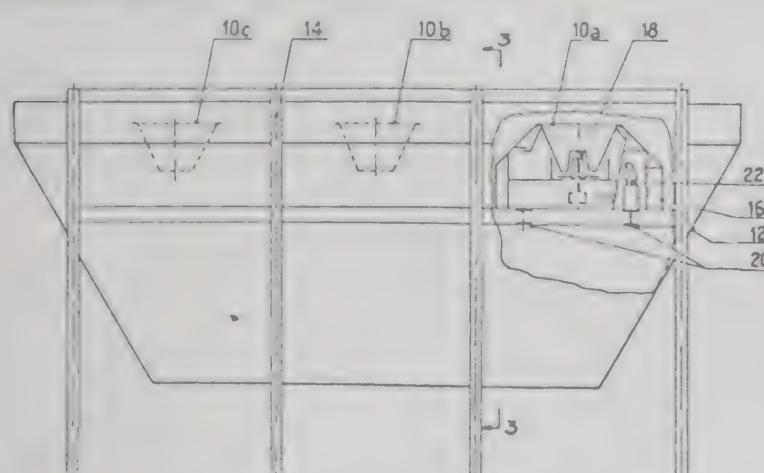
D22 US4240909

PROJ- D17 08856 A/05 = GB 1582-480
Glucose recovery from cellulosic plants - by steaming and defibration, leaching with aq. alkaline soln. and hydrolysing fibrous residue

PROJECTIERUNG CHEM 20.07.76-AT-005345
E13 F09 (07.01.81) *DE2732-289 C13k-01/02

18.07.77 as 030031 (9pp954)
Prodn. of glucose from cellulose-contg. vegetable raw materials, comprises treating the material with satd. ste at 160-230 deg.C for 2 minutes to 4 hrs. to disintegrate the material, then lixiviating with aq. alkali soln.; and separating the fibrinous residue and subjecting the residue to acid or enzymatic hydrolysis.

Pref. the alkali is 0.1-4 (0.3-0.6) wt.% NaOH. Glucose of high purity is obt. by this simple process from e.g. hardwoods, straw, bagasse, grain husks, corncob residues and maize straw.



D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

DORI- ★ D21

Cosmetics prods mfr.

DORIS-COSMETIC EBER 24.08.79-AT-005695
(15.12.80) A61k-07/48

D/02 ★ AT 7905-695

OREA ★ D21

00781 D/02 ★ BE -883-864

Hair colouring compsn. contg. 2,4-di:amino butoxy benzene - as non-mutagenic coupler in oxidn. dyeing

L'OREAL SA 18.06.79-FR-015553

E24 (17.12.80) A61k

17.06.80 as 883864 (19pp597)

Compsn. used in the presence of oxidising agent contains in an appropriate support, at least one oxidn. base and at least one couplethese being non-mutagenic or very slightly mutagenic in the Ames test on *Salmonella Typhimurium*. The compsn. contains 2,4-diamino-butoxybenzene and/or its acid salts, as a coupler.

The cpd. enables good stable shades, is harmless and, unlike 2,4-diamino anisole previously used, is non-mutagenic by the above test.

THOR/ ★ D21

00802 D/02 ★ BE -884-850

Plaque detecting and treating dental compsns. - contg. non-acid indicator and plaque inhibitor

THOREL J N 20.08.79-FR-020929

B05 (16.12.80) A61k

20.08.80 as 884850 (10pp941)

In dental compsns. contg. at least one plaque indicator (I), at least one cpd. (I) is non-acid and the compsns. also contain at least one plaque inhibitor (II), pref. a quat. ammonium or double ternary ammonium cpd., esp. cetyl pyridinium chloride or chlorhexidine. (I) is pref. neutral red, o-toluidine blue or methyl violet.

The compsns. can be used for both detecting and treating plaque, and have a synergic effect. They are non-toxic, stable, water-sol. (allowing rapid removal after use) and have acceptable taste. They are selectively taken up by plaque and rapidly give a colour with good contrast. They have bactericidal and plaque inhibiting activity, indicate pH and reduce surface tension. (I) do not inhibit dextranase (c.f. erythrosine and iodine).

MARI/ ★ D21

D/02 ★ BR 7903-845

Assembly for acrylisation - in ordinary total and removable acrylic dentures

MARIAG R 13.06.79-BR-003845

A96 P32 Q77 (16.12.80) A61c-13/08 B29f-01/02 F27b-17/02

CIBA D21

82116 A/46 = GB 1582-420

2-Phenylamino phenyl acetyl amide(s) - having antiinflammatory and analgesic activity, also useful in sun tan preparations

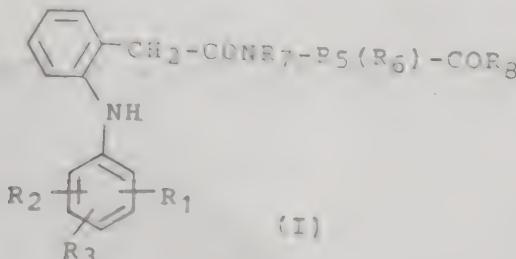
CIBA GEIGY AG 09.09.77-LU-078106 (11.05.77-LU-077316)

B05 E14 (07.01.81) *BE-866-911 A61k-31/16 C07c-103/32

03.05.78 as 017465 (30pp963)

Phenylacetic acid amide cpds. of formula (I) are new. R1 is hydrogen, lower alkyl, lower alkoxy, halogen of atomic number not more than 35 or trifluoromethyl; R2 is H, lower alkyl, lower alkoxy, halo of atomic no. up to 35 or CF3; R3 is H, lower alkyl, lower alkoxy, or halo of atomic no. up to 35; and R4 is H, lower alkyl, lower alkoxy or halo of atomic no. up to 35. R5 is a radical of aliphatic character contg. the gp. R6, R6 and R7 are each H or are together a divalent aliphatic radical and the -COR8 is an opt. modified carboxyl.

Cpds. (I) have antiinflammatory and analgesic properties, and are useful as antiphlogistic agents. They are also useful as UV absorbers for cosmetic purposes.



NOTT/ ★ D21

00892 D/02 ★ GB 2050-160

Protective skin cream compsns. - contg. double Jersey cream milk as fat source

NOTTAGE HC 10.04.79-GB-012657

A96 (07.01.81) A61k-07/40

10.04.79 as 012657 (4pp367)

Protective cosmetic cream compsns. for application to the skin characterised by the fact that the fat content necessary to enable cream to be massaged into the skin is provided by the cream co of double Jersey cream milk (I).

The compsns. can be used as baby creams, moisturising creams or after-shave. They protect the skin against atmospheric pollutants.

FUJI- ★ D21

01009 D/02 ★ J5 51

Skin cosmetic contg. mineral, animal or vegetable tar - which been distilled at low pressure and/or acylated

FUJINAGA SEIYAKU KK 27.04.79-JP-051421

(10.11.80) A61k-07

27.04.79 as 051421 (4pp5)

Skin cosmetic contains mineral, animal or vegetable tar which been refined by distn. under reduced pressure and/or acylation, is used as a controlling agent for skin disorders.

Natural tars are distilled at 50-210 deg.C under reduced pressure 5-10 mmHg and the distillate collected. The distillate having hi. b.pt. contains most of the cancer-inducing substances and muta, and the fraction with a lower b.pt. contains most of the colouring odorous substances and little effective substance.

Combining natural tars in skin cosmetics prevents skin disor caused from the use of cosmetics, can be prevented and distn. of natural tars under reduced pressure and/or acylating them reme the cancer-inducing substances, mutagens colour and smell.

SIYA ★ D21

01010 D/02 ★ J5 5143

3-Hydroxy:chromone contg. whitening cosmetic - inhib tyrosinase, is non-toxic, antioxidant and absorbs UV light

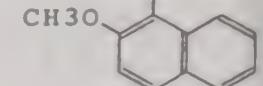
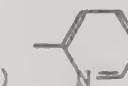
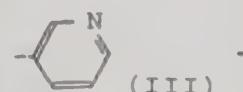
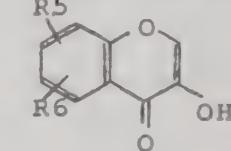
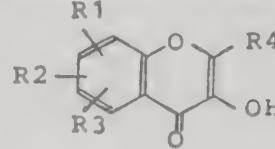
SANSEI SEIYAKU KK 25.04.79-JP-051609

E13 (10.11.80) A61k-07

25.04.79 as 051609 (5pp5)

Whitening cosmetic contains 3-hydroxychromone cpd. represen by formula (I) or (II) as the effective ingredient. R1, R2, R3 are OH, CH3, CH3O, NHCOCH3 or Br. R4 is CH3, CH3O, the gp. (IV), (V), (VI), styryl, pyrrolyl, p-benzoquinonyl, naphthyl or anthryl gp. R5 is H, CH3 or CH3O. R6 is NH2 or CH3O.

(I) and (II) are nontoxic to human beings and inhibit tyrosin they have good antioxidanting activity and absorb UV. Combined cosmetic base the cosmetic which is preservative and stable to ll and pH, shows a good antiseptic, whitening and anti-suntan effect



POKK ★ D21

D/02

01011 D/02 ★ J5 5143

Unsatd. cosmetic cpd. is stable - and does not stimulate the skin

POLA KASEI KOGYO KK 26.04.79-JP-051776

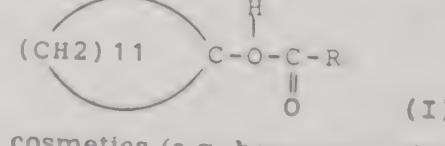
E15 (10.11.80) A61k-07

26.04.79 as 051776 (6pp5)

Cosmetic contains cpd. (I) where R is a more than 5C opt. strai alkyl.

Examples of (I) include cyclododecyl-hexanate, cyclododecyl ethylhexanate, cyclododecylneodecanate, cyclododecyl-isolaure etc. (I) is easily prep'd. by esterifying cyclododecanol with o branched satd. fatty acid.

(I) is more stable than similar unsatd. cpds. and is non-stimulati to skin even though it has below 25 C, and can be used as the oily ba for skin cosmetics. (I) has a better mutual solubility with other o



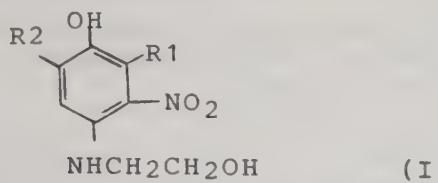
components of cosmetics (e.g. bees wax, whale wax, tallow, etc) compared with squalane.

D21 01146 D/02 ★ J8 0048-091
 tal alloy for filling teeth in dental surgery - by adding tin to adding zinc to lower m. pt. and kneading to effectation
 HIDA R 20.06.73-JP-069452
 (04.12.80) *A61k-06/04 C22c-01/02 C22c-28
 as 069452 (4pp26)

of a raw material of metal to be filled in a tooth in the dental is claimed. 1-13.5 wt.% of tin is added to gallium and 24.5 5% wt.% of zinc is also added to lower the m.pt. and kneaded porarily lower the m.pt. of gallium to cause it to be sed. (J50017092).

D21 75874 Y/43 = J8 0049-088
 p-(4)-hydroxy-ethylamino phenol and ring alkyl derivs. - used in hair dyeing compsns.
 REAL SA 21.04.76-LU-074807
 (10.12.80) *BE-853-733 A61k-07/13 C09b-53
 as 045211 (11pp59)

minophenols of formula (I) (where R1 and R2 are each H or 1-1) are new. Cpdns. (I) are used as dyes in hair dyeing compsns. give red dyeings with good light and weather fastness. The e also stable in the presence of ammonia and peroxides and efore be used with oxidn. dyes.
 In example, 3-nitro-4-hydroxyethylamino-phenol was prepnd. the corresp. NH2 cpd. by reacting with chloroethylchloro- (Cl-COOCH₂CH₂Cl) followed by alkaline hydrolysis of the mated formed. (J52132030).



D21 60129 B/33 = US 4239-533
 um contg. magnetic alloy - with relatively low melting point, is nickel and/or cobalt
 LACHI METAL KK 06.02.78-JP-012206
 M26 V02 (X12 X24) (16.12.80) *DE2820-377 C22c-19
 as 904321 (3pp926)
 pt. dental alloy which has magnetic properties contains in 0-70 Co, 29-80 Ni, and at least 35 Pd. It has a magnetic flux of at least 2000 G and a m.pt. of not greater than 1350 deg.C. the alloy also contains up to 15 Cr, up to 30 Fe, up to 20 Cu, up to 3 Sn, up to 20 Pt, up to 23 Au and up to 3 Ag. The alloy melted and cast with relative ease.

D21 01574 D/02 ★ US 4239-781
 l application of poly:alkylene glycol - for treating dandruff, 's foot, eczema and flaking skin
 WARDS R 03.05.79-US-035604 (09.02.78-US-876203)
 B04 (A25) (16.12.80) A61k-31/08
 as 035604 (2pp916)
 ilments are treated by applying topically a polyalkylene - (I), esp polypropylene glycol and polyethylene glycol as active ients. (I) may be formulated with vegetable or mineral oils, tide, talc or diatomaceous earth. Dandruff and flaking skin is by topical application twice daily of polyethylene glycol, t. 400 sufficient to wet the skin. The condition is cured after 2 treatments. Eczema is treated by applying an ointment ring 50% wt polyethylene glycol, mol. wt 400-15,000, 25% wt tide and 25% wt mineral oil.
 have no side effects, they are colourless and odourless and

D21 67034 A/38 = US 4240-450
 ppsn. for treating hair, nails or skin - partic. for shampoo ontg. anionic and cationic polymers
 REAL SA 15.03.77-LU-076955
 + P24 (23.12.80) *BE-864-863 A61k-07/08 + A45d-07
 as 886554 (52pp924)
 sn. suitable for the treatment of keratin materials, comprises n. polymer(s) contg. at least one unit of sulphonic, carboxylic nosphoric acid and having a mol. wt. of 500-5 million, (ii) nionic polymer(s) in a solvent medium, and (iii) anionic, cationic, or amphoteric surfactant(s) or their mixts. in an amt. of t.% (based on total compsn. wt.)
 anionic and cationic polymers are present in an amt. of 0.01- relative to the total compsn. wt. Pref. the compsn. contains an vent medium. Pref. the compsn. further contains a mono- or lcohol, glycoester, fatty acid ester, methylene chloride or mixt. as solvent.
 compsn. is rinsed out to leave the anionic polymer on hair, - nails etc.

BREW- ★ D21 01710 D/02 ★ US 4240-780
 Foam scrubbing device - consisting of glycerine soap bar between two foam layers of different porosities
 BREWSTER LAB INC 21.07.78-US-927251
 A96 P28 (23.12.80) A47k-07/02
 21.07.78 as 927251 (5pp478)
 Foam scrubbing device consists of: (a) a dense foam layer (I) of a foam material possessing a porosity and thickness for allowing foam layer (II) which has the same shape as (I), a greater porosity but a greater thinness than (I) so that the same amt. of wetted soap as passes (I) is allowed through; and (c) a glycerine soap bar (III) between (I) and (II) which are heat sealed about the edges to encapsulate (III). The different porosities of (I) and (II) provide different abrasive characteristics for cleaning and scrubbing.

The device has surfaces of differing coarseness, and is useful e.g. for removing dirt, whiteheads, blackheads and dead skin cells, and also for cleansing oily skin and helping the control of acne pimples. In addn., the device foams easily, washes freely, and lasts 14-21 days with 3 cleansing applications per day.

RITP D21 60771 C/35 = US 4240-832
 Compsn. for filling teeth - contains salicylic ester:aldehyde condensate and excess calcium hydroxide

SYBROK CORP 12.02.79-US-011389
 A96 E33 (23.12.80) *DE3005-134 + C09k-03
 12.02.79 as 011389 (5pp945)

Dental pulp capping and cavity lining compsn. comprises Ca(OH)₂ and a condensate of a salicylic acid ester and acetaldehyde or formaldehyde. Aldehyde to salicylate mol. ratio is 0.5-1.0:1. The Ca(OH)₂ is in stoichiometric excess over the condensate, and reacts with it to form a hard, rigid mass contg. free Ca(OH)₂ dispersed in it. The formaldehyde may be in oligomeric form, e.g. as paraformaldehyde, metaformaldehyde or trioxane.

The compsn. can be placed over moderately inflamed dental pulp to reduce inflammation and induce dentinal bridge formation. It cures quickly and has crushing strength sufficient to resist amalgam condensn. pressure. It is resistant to etching acids and compatible with composite restorative materials.

COLG ★ D21 01836 D/02 ★ US 4241-049
 Stabilisation of antibacterial dentifrice - contg. di-chlorophenyl-bi:guanido-hexane, by adding alkaline earth salt

COLGATE PALMOLIVE CO 10.10.75-US-621460 (22.03.71-US-126972)

A96 B05 (B06) (23.12.80) A61k-07/22

10.10.75 as 621460 (+ 26.1.73-US-326811) (4pp367)
 Process is claimed for preventing liq-solid phase sepn. in a dentifrice compsn. in the form of a cream or gel contg. 0.01-5 wt.% flavouring oil and 0.015-2 wt.% phosphate ion. The process comprises adding (a) 0.01-5 wt.% 1,6-di(p-chlorophenyl-biguano)hexane (I) as antibacterial agent and (b) 0.25-10 wt.% of a water-soluble alkaline earth metal salt (II) of a strong acid to prevent phase sepn.

(II) is pref. a Mg or Ca halide, nitrate or sulphate (esp. CaCl₂ or MgCl₂) and is added in an amt. of 0.25-0.50 wt.%. The dentifrice compsn. pref. comprises a gelling agent (esp. a cellulose deriv), a water-insoluble polishing agent (esp. a phosphate), water, humectant, flavouring oil and a surfactant, esp. Na N-lauroyl-sarcosinate (III).

CHAL/ ★ D21 01941 D/02 ★ WP 8002-640
 Electrical hair removal treatment - by first applying wetting soln. with ionic properties to provide conductive track to hair papilla

CHALMERS E 29.05.79-US-042799

S05 P31 (11.12.80) A61b-17/41

28.05.80 as U00623 (15pp513) (E) US2888927 US3999552 US4174714 N(AU BR DK JP NO) E(AT CH DE FR GB NL SE)
 A wetting soln. with ionic properties is first applied to hair and to the surrounding skin. The soln. is allowed to set the hair, both external and within the follicle, so that a continuous thin film of the soln. is formed along the hair. A regulated electric voltage is then applied to the hair so that a current flows down the ion path to coagulate the hair papilla, after which the hair is removed.

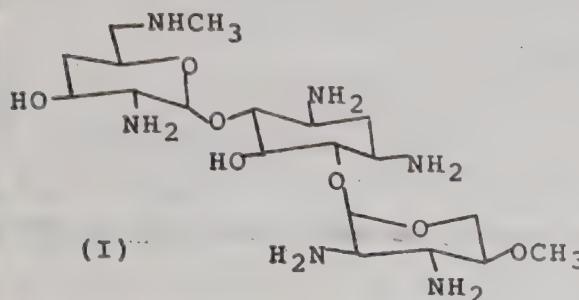
Process gives certain depilation and is less painful and potentially harmful than prior art processes such as electrolysis or dry application of electrified tweezers.

UYCH- ★ D21 01942 D/02 ★ WP 8002-642
 Reducing cariogenic activity of sugar, foods etc. - by incorporating a soluble source of calcium or phosphate ions

UNIV CHICAGO 11.04.80-US-139199 (07.06.79-US-046314)
 B06 (11.12.80) A61k-07/16 A61k-33/06
 04.06.80 as U00691 (37pp1251) (E) AU-256211 AU-259269 AU-261082 AU-290459 AU-445260 GB1009957 GB1384375 GB1408922 US2967131 US3194682 US3337412 US3375168 US3462366 US3467529 US3469989 US3471613 US4022887 US4048300 US4080440 US4083955 US4097588 US4108980 US4127645 US4177258 US4183915 US4193988 N(AU CH DE GB NL SE) E(FR)

The cariogenicity of a soln. of a cariogenic substance (A), esp

g. Streptomyces hofuensis ATCC 21970. (I) exhibits a rum of antibacterial activity and is also effective against ria resistant to XK-88-5.



D22

D/02 ★ IL --52-536

enerator, e.g. for vaporising pesticides - includes container d by heat source cooling means, temp. sensing means and le heat source

L MIN AGRICULT 15.07.77-IL-052536
5 P14 P34 (30.11.80) A01m-13 A611-09/03

D22 01194 D/02 ★ J8 0048-874
ide for use in swimming pools, cosmetics inks etc. - es zinc and/or manganese salts of ethylene (and/or e) bis di:thiocarbamic acid

TO ORG CHEM IND KK, 07.07.71-JP-049593

C12 (D22) (09.12.80) C02f-01/50

049593 (1pp83)

aterial agent (I) comprises Zn-, Mn- or Zn/Mn mixed salt of - and/or propylene-bis-dithiocarbamic acid. The agent is s to man and other animals. The carbamates may be with ammonia.

ls mould and bacteria in water for cooling, swimming pool, es, ink, etc. (J48018426).

D22 33844 T/21 = J8 0049-043
noacetophenone - for use as a microbicide in aq suspensions

FFER CHEMICAL CO 16.11.70-US-090065

03 E14 (10.12.80) *BE-775-383 + A01n-35/02

090692 (3pp)

romoacetophenone is prep'd. by reacting acetophenone with esence of ether or dioxane solvent at room temp. ditive is used to destroy microorganisms producing sludge paper pulp, and is extremely effective in preventing sludge on in all types of liquid, suspensions. (J47010499)

D22 61146 A/34 = J8 0049-098
able compsn. for slow release of perfume, insecticide etc. - ing adamantane and endo:tri:methylene-norbornane

IMITS IND KK 25.12.76-JP-155651

C15 + P34 (10.12.80) *J53081-631 + A01n-25/18 A611-09/*

-03

as 155651 (5pp4)

ting compsn. is composed of adamantane 1-25 wt.% and methylene-norbornane 99-75 wt.%. Compsn. can provide excellent in mechanical strength and from it all ents can be volatilised uniformly. Thus it can be applied as lalent carrier for perfume, insecticide, deodorant, etc. antane is a nontoxic odourless sublimating hydrocarbon and mouldings have excellent form-holding properties and cal strength. Further its mouldings can hold relatively nt. of liq. perfume, etc. in the voids between crystals, but its al mouldings suffer from powder-coating problems. antane is mixed with endotrimethylene-norbornane which is non-toxic odourless sublimating hydrocarbon but has ate form-holding properties. (J53081631).

D22 61147 A/34 = J8 0049-099
able compsn. used as carrier for perfume or insecticide - s synergistic mixt. of adamantane and cyclododecane

IMITS IND KK 25.12.76-JP-155653

C15 + P34 (10.12.80) *J53081-633 + A01n-25/18 A611-09/*

-03

as 155653 (4pp5)

ublimable compsn. is composed of adamantane and decane. Compsn. is non-toxic and odourless and can be used

antane mouldings hold relatively large amt. of liq. perfume, r long time, but its single mouldings suffer from powder- g phenomenon. Cyclododecane is also a non-toxic sublimable carbon but it can hardly hold perfume, etc. Together they form ergistic mixt. To obtain the mouldings, adamantane is used in nt. 10-90 w/w% and to obtain the moulding showing long time, adamantane is used in amt. 50-95 w/w%.

The compsn. provides mouldings of good mechanical strength and holds large amt. of perfume, etc. for long time. Thus it can be used as the carrier for perfume, insecticide, deodorant etc. (J53081633).

CIBA ★

D22

D/02 ★ PT --71-433

4-Oxa 6-aza 6-phenyl spiro (2.4) heptano-5,7 diones prepn. - for use in microbicidal compsns.

CIBA GEIGY AG 03.06.80-CH-004285 (27.06.79-CH-005995)
B03 (12.12.80) C07d

PROC

D22

88809 C/50 = US 4239-043

Water absorbing foamed material for tampons etc. - comprises hydrophilic foam e.g. polyester, coated with absorbent cover material

PROCTER & GAMBLE CO 29.11.78-US-964842
A96 + P32 (16.12.80) *J55108-358 A61f-13/20
29.11.78 as 964842 (9pp1376)

Absorbency of hydrophilic foam is increased by having cellulose fibres of a length of at least 1mm a dia of 15 to 45 microns on the surface. The wt of fibres is 5 to 35% of that of the foam. The foam is polyester or polyurethane. Pref the foam is in blocks a thickness of 1/16 to 1

The foam and cellulose fibres are pref encased in a fluid permeable sheet which can be used as a tampon.

KULZ

D22

72816 A/41 = US 4239-113

Material for prepn. of bone cement - contg. acrylate copolymers with glass particles and fibres to give good mechanical properties

KULZER GMBH 02.06.77-DE-724814
A96 L02 P32 + P31 Q34 (A14) (16.12.80) *BE-867-756 B65d-69
01.06.78 as 911425 (4pp937)

An uncured bone cement compsn comprises (1) 15-75wt% of a mixt of inorganic material (111)and (11) a mixt of methylmethacrylate acid methyl acrylate copolymers. (111) is (a)90-99wt% powdered bioactive glass ceramic of between 10-200 micrometre particle size and 20-60 wt% SiO2, 5-40 wt% P2O5, 2.7-20 wt%Na2O, 0.4-20 wt% K2O, 2.0-30 wt%MgO, 5-40wt% CaO, and (b)1-10wt% viterous mineral fibre pref glass, of 2-5mm

Pref, the compsn also contains liquid methylmethacrylate monomer and a peroxy catalyst. The compsn also contains zirconium dioxide as an X ray contrast means and a small amt of Gentamycin antibiotic.

The cement is pliable and mouldable when applied to the bone which when curved has good mechanical properties together with characteristics favourable to the development of bone structure.

HOLM/ ★

D22

01435 D/02 ★ US 4239-492

Prepn. of umbilical cord for implantation into human body - includes roughening surface to improve host tissue adhesion

HOLMAN D G 14.06.79-US-048381 (26.01.78-US-872606)
(16.12.80) C14c-01
14.06.79 as 048381 (3pp955)

The outer surface of the cord is roughened, with a series of abrasions each of which extends through the outer membrane, to give a surface having a number of small hair-like projections. The cord is flushed, mounted on a mandrel in a desired configuration, and immersed in a soln. contg. more than 70% ethanol. It is then treated with an aq. soln. of dialdehyde starch and/or glutaraldehyde, contg. at least 1% aldehyde, until the configuration is fixed.

The prod. is useful for vascular replacement or arterial/venous fistula, esp. in haemodialysis patients. Umbilical cords are not usually rejected. Roughening the surface improves adhesion to surrounding tissues, reducing the chances of perigraft aneurism following puncture e.g. for insertion of a cannula.

FARH

D22

01804 C/02 = US 4239-525

3-(1,2,4-Triazolyl)-cinnamic and crotonic acid derivs. - used as pesticides and fungicides for plant protection and plant growth regulators esp. for cereals

HOECHST AG 19.06.78-DE-826760
C02 E13 F09 (16.12.80) *DE2826-760 A01n-43/82 C07d-249/08
18.06.79 as 049437 (12pp963)

1,2,4-Triazole derivs. of formula (I) are new. R1 is methyl or phenyl opt. substd. by halogen, 1-4C alkyl, or 1-4C alkoxy; and R2 is R30 where R3 is up to 12C alkyl, opt. substd. additionally by halogen, 1-4C alkoxy or up to 8C alkoxy carbonyl; or is up to 3C alkynyl; or is up to 6C cycloalkyl and opt. substd. additionally by 1-4C alkyl; or is phenyl opt. substd. by halogen or trifluoromethyl, or R2 is -NR4R5 where R4 is H, or 1-4C alkyl opt. substd. by up to 8C alkoxy carbonyl; and R5 is 1-4C alkyl or phenyl opt. substd. by halogen, CF3, 1-4C alkyl, 1-4C alkoxy, phenoxy or halophenoxy.

R1 - C=CH-COR2



(I) exhibit fungicidal activity and may be used to protect plants

D 22: BANDAGES; DRESSINGS - p. 28

and in technical field e.g. for protecting wood, etc; they also have plant regulating activity.

DESP ★ D22 01463 D/02 ★ US 4239-541
Mildew sealing coating compsn. - for use before painting, provides paintable surface without need to remove mildew

DESO TO INC 29.06.78-US-920342
E38 G02 (16.12.80) C09d-05/14

29.06.78 as 920342 (3pp955)
Compsn is an aq suspension contg an effective amt. of an alkali-stable mildewicide, a non-volatile relatively insoluble alkaline earth metal cpd., esp. barium oxide or hydroxide, present in wt. percentage equiv. to 0.006-0.03 times its equiv. wt., and latex particles which can coalesce to form a film at room temp.

The compsn. is scrubbed into walls, etc. affected with mildew. It dries quickly to a film which can be painted. The mildewicide kills mildew immediately on contact while the alkaline earth cpd. provides prolonged protection against further attack.

RESE ★ D22 01522 D/02 ★ US 4239-664
Antithrombogenic PVP-heparin polymer - with low anticoagulant profile, useful as a plastics coating

RESEARCH CORP 31.10.78-US-956049 (18.03.77-US-778974)
A96 B04 (16.12.80) C08l-05/10

31.10.78 as 956049 (10pp985)
An antithrombogenic, chloroform soluble polymer (I) comprising covalently bound poly-N-vinylpyrrolidone (PVP)-heparin is new. The PVP has mol. wt. 10000-360000, and the heparin has a normal mol. wt. 6000-20000. (I) is formed by activators PVP with thionyl chloride to give an imidoyl ion and bonding heparin to the ion.

(I) is useful as a protracted i.v. therapeutic drug on humans and it can maintain a low anticoagulant profile but with long sustaining anticoagulant effect. (I) can also be used to coat plastics e.g. silicone rubber and PVC, and is more suitable than in prior art cases where the heparin was bound to the plastics by chemical modification. The coated plastics can be used in implants, extracorporeal biomedical devices and prothesis for use in direct contact with blood e.g. tubes, valves and dialysis membranes.

(I) has twice the half-life in sheep as does the native heparin and is non-toxic.

ELEX D22 54396 Y/31 = US 4239-730
Autoclave sterilization system - using steam followed by compressed air mixed with steam after reaching desired temp. and pressure

ELECTROLUX AB 26.01.76-SE-000739
P34 (16.12.80) *DE2702-669 + A61l-02/06

31.07.78 as 929734 (6pp1376)
In a sterilising autoclave the supply of steam and compressed air, and discharge and vent conduits are controlled so that only steam is admitted to heat the chamber and the articles to the sterilising temp. Before the sterilisation period commences valves in the vent conduit and the air supply are opened to replace the steam with a steam/air mixt. Pref. a small quantity of H₂O is sprayed in the chamber during steam replacement.

Pressure increases in packaged articles and temp. increases above the sterilising temp. are avoided.

AMSA ★ D22 01557 D/02 ★ US 4239-731
Fabric goods sterilisation with ethylene oxide - following sub-atmosphere pretreatment cycles with steam

AMERICAN STERILISER CO 21.11.79-US-096489 (11.11.77-US-850846)

E13 P34 (16.12.80) A61l-01 A61l-03 A61l-05

21.11.79 as 096489 Div ex4203943(14pp295)
Goods to be sterilised are placed in a sealed chamber provided with pressure sensors connected to a control circuit. Valves control the admission of conditioning steam to the chamber and an exhaust system. The goods are subject to a number of subatmospheric pressure cycles between 50 to 100mmHg. abs. After this pretreatment the pressure is raised and a chemical, sterilising gas, pref ethylene oxide is introduced.

The control circuit may provide either a predetermined number of subatmospheric cycles or provide for cycling until the successive times of two pressure cycles are found to be equal. During each pressure cycle the steam inlet and exhaust valves are opened simultaneously for part of a cycle.

The appts sterilises fabric goods or goods with interstitial spaces. Moistening and heating the goods with steam prior to sterilising with gas reduces the gas requirements. The appts adjusts its performance in accordance with the load and sterilises a small load faster than a larger one.

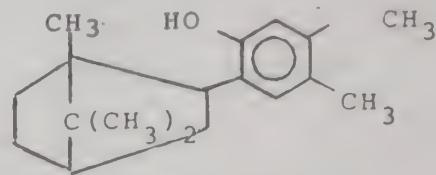
FARM- D22 84723 B/47 #US 4
Antibacterial 6-iso-bornyl-3,4-xylenol prep. - by cond. camphene with 6-iso-bornyl-3,4 xyleneol-benzyl ether (sic) Friedel-Crafts catalyst, hydrogenating and de:benzylating

FARMATIS SPA 28.02.78-IT-020684 (27.03.79-US-024208)

E14 (16.12.80) *J54115-360 C07c-39/15

27.03.79 as 024208 (10pp937)
6-Isobornyl-3,4-xylenol of formula (I) is prep. by cond. camphene and 3,4-dimethylphenol benzether in an inert anh. organic solvent pref. of CS₂, CCl₄, CH₂Cl₂, ethyl ether, benz. nitrobenzene in the presence of a Friedel-Crafts catalyst p. SnCl₄, BF₃, AlCl₃ or SbCl₅ at a temp. of 0 deg. C. The 6-isobornyl-xylenol benzether obt. is debenzylated by hydrogenation in presence of a catalyst chosen from Pb, Pt or their cpds. Hydrogenation is carried out in a solvent comprising a m. ethylacetate and acetic acid.

The process is simple and economical producing 6-isobornyl-xylenol (Xybornol) in high yield of practically pure prod.



GALI/ ★ D22 01680 D/02 ★ US 424
Intra/ocular lens coated with medicament - comprising sulphated polysaccharide or ethyl acrylic acid

GALIN M A 31.01.79-US-007890
A96 B04 P32 (23.12.80) A61f-01/16

31.01.79 as 007890 (4pp367)
Intraocular lenses (e.g. implanted to replace a cataractous lens) coated with a medicament comprising a sulphated polysaccharide (I) or ethacrylic acid (II). (I) can be dextran sulphate, chondroitin sulphate, chitosan sulphate, xylan, sulphate, sulphated hyaluronic acid, or esp. heparin with a low molecular wt. (2500-5300). Coating pref. has aickness of 0.0001-0.01 mm and makes up 0.1% of the wt. of the lens. The coating can be applied to anterior and opt. the posterior surface of the lens.

RECT/ ★ D22 01682 D/02 ★ US 424
Expression former for corpse - thin resilient plastic plate with spreading wings for better fit

RECTOR C W 21.09.79-US-077679
(23.12.80) A01n-01

21.09.79 as 077679 (7pp1358)
Former for insertion between lips and teeth and gums of a corpse comprises a thin resilient plate with double curvature to fit the dental arch and forming a pair of wings and central connecting section with spurs to engage mouth musculature. A continuous line connects offset upper and lower parts of the central section.

The central section has dividing lines extending toward the respective wings to form two flaps which allow wider spreading of the expression forming wings and greater adaptation to the dental arch. The former is pref. of transparent plastics, e.g. polyethylene, polypropylene or polymethylmethacrylate.

WFRA- ★ D22 01673 D/02 ★ US 424
Orthopaedic cast prep. from poly-epsilon caprolactone sheet - electron irradiating, heating, forming and cooling

WFR/AQUAPLAST CORP 18.12.78-US-970626 (25.02.77-772090)

A96 P32 (A23 A32) (23.12.80) A61f-05/04

18.12.78 as 970626 (6pp558)
An orthopaedic cast comprises poly(epsilon-caprolactone) of formula -(O-(CH₂5-CO)x-), where x makes the wt. average mol. greater than 5,000, which is subjected to electron radiation in range of 0.5-15.0 megarads and having a m.pt. of 50-100 deg.C., with half-time crystallisation at 36 deg.C of 0.5-10.0 mins.

The orthopedic cast is formed by subjecting a preform sheet poly(epsilon-caprolactone) to electron radiation to heat the sheet, softening point, forming the sheet to the desired shape and allowing it to cool below its m.pt.

The cast is clean and simple to apply; is self-indicating when ready to apply and opaque when non-formable; is elastic in the m.pt. state and can be reformed to its pre-application shape by remelting and allowing to relax; has moulding characteristics relatively insensitive to the temp. of heating and application; conforms readily to irregular body shapes; and is light, strong and sanitary in use.

D22

68978 A/39 = US 4240-416

absorbent sheet for hygienic and medical uses - e.g. ssing, has skin contacting surface which always feels dry
CKE J H GMBH 20.05.77-DE-722860
4 P73 + P32 (23.12.80) *BE-867-265 A611-15
907727 (4pp924)

lat structure having a high absorption capacity for nd hygiene purposes, comprises at least two layers having moisture absorption characteristics. One of the layers is a ver comprising nonwoven bonding agent-free bonded fibres. Another layer is a storage layer located below the er and having a higher absorption capacity than the cover

er layer is treated with a wetting agent and has a moisture n capacity in accordance with DIN53802, and a moisture f less than 6% relative to its dry wt. in accordance with The treated cover layer is capable of being wetted by the be absorbed and to pass such liquids without interruption age layer so that the cover layer remains dry to the skin. ver layer comprises moisture repellent fibres, the surface are treated with the wetting agent. The wetting agent of a reaction prod. of castor oil and ethylene oxide reacted in atio of 1:40.

D22

01686 D/02 ★ US 4240-436

rectal treatment disposable cold pack - comprising liq. in plastic container preformed to fit treatment region
LETON R R 31.08.78-US-938336

32 (23.12.80) A61f-07

938336 (5pp1358)

preformed for treatment of the vaginal-rectal region es a polyethylene container holding water-alcohol mixt. and or use without further manipulation. An elongate base is o conform with the curve of the region and is narrower at the d, with the edges concavely curved.

extend upwardly from the base and are angled towards one and a contact surface connecting the side top edges has concavely curved side edges. The surface mid-part has an y protruding elongate section for partial insertion into and rectal openings. There may be a tubular protrusion surface for insertion into the rectum.

D22

01717 D/02 ★ US 4240-794

ing human umbilical cord to predetermined configuration - ng cord, mounting it, immersing it in ethanol, then treating ehyde

MAN D G 25.06.79-US-052068 (26.01.78-US-872605)

34 (23.12.80) A611-17 C14c-03/08

052068 (3pp478)

of conforming a human umbilical cord (I) to a mined configuration for implanting in a human body is as (a) (I) is flushed then mounted upon a mandrel of the desired ation; (b) the mounted (I) and mandrel are immersed in aq. at least 70% EtOH until (I) is dehydrated and shrunk onto the ; and (c) the dehydrated and mounted (I) is immersed in an of dialdehyde starch (II) or glutaraldehyde (III) (both solns. ore than 1% of aldehyde) so that the configuration is fixed. ssed (I) have a performance (as cannula for blood vessels) ntly superior to that of synthetic resinous materials, and : useful as vascular replacements and/or arterial venous etc.

D22

44395 A/25 = US 4240-909

ked boron-contg. resin - used to reduce aldehyde(s), amine(s) and olefin(s) and selectively remove metals for media

M & HAAS CO 10.12.76-US-749560 (13.03.78-US-886221)

04 M25 (D17 S03) (23.12.80) *DE2755-170 B01d-15 C02f-01/70

886221 (6pp918)

hyl Hg,Sb, As, Bi, Ag, Au, Pd, Pt, Rd, In ions are removed and non-aq. media by first contacting with nonionic borane resin (I). Resin (I) comprises a solid, cross-linked er contg. many amine or phosphine-borane adduct al gps. After contacting with (I) the ions in soln. are reduced or transfer and the reduced metals pptd. on, and/or into the er resin.

he adduct functional gp. has formula -Z(R1)(R2)-BH₃, where R2 are H, 1-8C opt. substd. alkyl, 6-12C opt. substd. aryl or 7- substd. aralkyl; and Z is N or P.

highly selective reducing agents and can be used in the

novel, metal catalysts for use in hydrogenation reactions.

ALKU ★

D22

01774 D/02 ★ US 4240-926
Sterilisation type and degree indicator - contg. thio:barbituric acid, and parabanic acid or a di:methyl oxalate-urea mixt.

AKZONA INC 26.02.79-US-015546

E13 (23.12.80) C01k-11/16 C01n-21/06 C01n-31/22 C09d-11/10 C09k-03

26.02.79 as 015546 (4pp478)

Compsn. capable of recording, and differentiating between, steam and dry heat sterilisations consists of: (a) thiobarbituric acid (I); and (b) parabanic acid (II), or a mixt. of dimethyl oxalate (III) and urea (IV). Compsn. mol. ratio (I):(II) is 2:1; and mol. ratio (I):(III):(IV) is 2:1:1.

Compsn. does not degrade under ambient sterilisation conditions, is relatively non-toxic, and avoids the formation of caustic by-prods. In addn. the compsn. (initially cream colour) turns wine red with steam sterilisation, or golden yellow with heat sterilisation (both at 100-130 deg.C). Compsn. is pref. an ink which also contains 15-30% by wt. of an H₂O-insol. polymeric binder (e.g. 'Resinox RJ-101' (RTM)), and 30-60% by wt. of a volatile organic solvent (THF, Me₂CO, or a low b.pt. alcohol, etc.).

ALKU ★

D22

01779 D/02 ★ US 4240-937
Highly absorbent cellulose fibre for tampon mfr. - prepd. by spinning viscose soln. contg. methacrylic acid-acrylic acid copolymer into acid bath stretching, converting to salt and stretching

AKZONA INC 03.01.78-US-866797 (11.08.75-US-603483)

A96 F01 (A14) (23.12.80) C08I-01/02

03.01.78 as 866797 C.i.p.4066584 (6pp960)

A highly absorbent cellulose fibre has incorporated into it an alkali metal or ammonium salt of an azeotropic copolymer of acrylic and methacrylic acid in wt. ratio 10-90:90-10. Pref. the fibre is regenerated from a viscose soln. and the copolymer is incorporated into the soln. as 2-30 wt.%, based on the wt. of cellulose. Prepn. of the fibre is also claimed.

Related patent 40.66584 claimed fibres contg. 2-40 wt.% of the copolymer salt in physical admixture.

The salt gives the fibre improved fluid absorption and renders it cardable. The fibre is esp. used to mfr. tampons.

MITR

D22

79296 B/44 = US 4241-007
Water-absorbent fabric product - is a compressed cellulose fibre nonwoven which can reassert its shape on absorbing water

MITSUBISHI RAYON KK 13.04.78-JP-043579

F04 P34 (23.12.80) *DE2911-076 + D21j-03

15.03.79 as 020839 (4pp965)

Prodn. of a water-absorbent solid cloth-like article comprises putting a binderless cellulosic nonwoven fabric into a mould. The fabric is then moulded and compressed at 1100-1500 (1200-1300) kg/cm square to give it water-absorption recovery properties.

On addn. of water the fabric returns to its original form prior to the moulding. Hot or cold water may be used. The prod. is esp. for use in vending machines. It may be used as blotting paper, duster or towelling.

AMSA

D22

82930 C/47 = US 4241-010

Gas sterilisation for biocidal treatment of goods - using chamber evacuated to low pressure and partially pressurised again to sterilising temp. by steam

AMER STERILIZER 06.02.79-US-009818

P34 (23.12.80) *EP-16-887 A611-02/20

06.02.79 as 009818 (8pp1358)

Goods are gas sterilised, e.g. with ethylene oxide, by heating and moistening in a chamber, closing and evacuating the chamber, injecting steam to raise pressure to a still subatmospheric level corresponding to sterilisation temp. and without flow rate control, and holding the chamber for a set time with evacuating and injection interrupted.

Evacuation and injection of steam are repeated optionally a number of times until the desired temp. and moisture conditions have been achieved, then biocidal gas is injected to raise the chamber to superatmospheric pressure and is held in the chamber for full sterilisation time. The chamber wall is pref. held at sterilisation temp. while the biocidal gas is in the chamber.

CERT- ★

D22

01823 D/02 ★ US 4241-020
Formaldehyde decontamination of space - then neutralising by recirculating air through gas generators with heaters

CERTEK INC 16.06.78-US-916199

S05 T06 P34 (23.12.80) A611-02/20 G05d-07 G05d-16

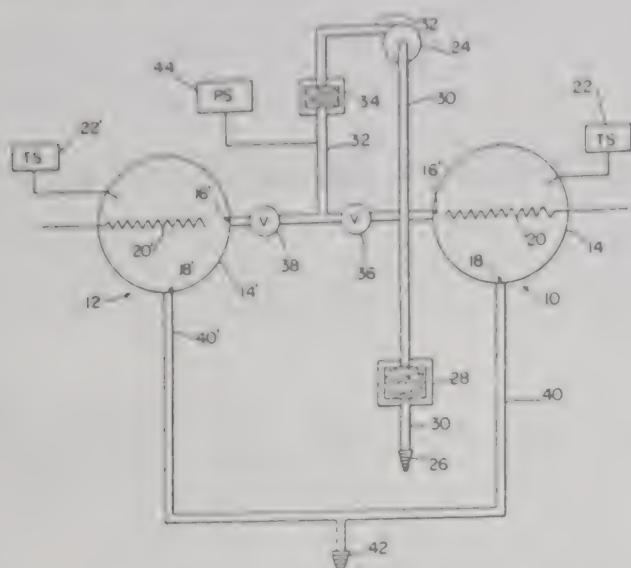
16.06.78 as 916199 (11pp295)

A space is decontaminated by recirculating air through a gas generating appts. The appts. includes a cannister which generates formaldehyde gas when heated. A similar cannister can generate a gas which neutralises formaldehyde. A control circuit activates sequentially the heaters of the two cannisters and also the valves in the recirculated air supply to first fill the space with formaldehyde gas and then to neutralise it. The control circuit has a pause phase

D 22: BANDAGES; DRESSINGS-p.30

after the space has been filled with formaldehyde gas to allow the gas to saturate the space before the neutralising gas is introduced.

The appts. is used to decontaminate a hospital room, mfg. area or animal cage. The control circuit includes an interlock which resets the appts. in the event of a temporary electricity supply failure or the obstruction of the recirculating air supply.



ROHM D22 76318 T/48 = US 4241-214
Metal complexes of 3-isothiazolones - with biocidal activity

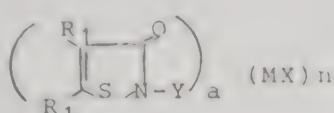
ROHM & HAAS CO 12.05.71-US-142775 (12.07.78-US-923845)
B03 C01 E12 + P34 (23.12.80) *NL7205-866 C07f-01/08 C07f-03
C07f-15

12.07.78 as 923845 Div.ex. 4150026 (12pp982)

Metal salt complexes of formula (I) are new. In (I), Y is 1-18C alkyl subst. by OH, halo, CN, (di)alkylamino, arylamino, carb(alk)oxy, alkoxyalkyl, aryloxy, alkylthio, arylthio, haloalkoxy, carbamoxy, isothiazolonyl or cycloalkylamino, opt. subst. up to 10C aryl, opt. halo-subst. alkenyl, 2-18C alkynyl, opt. subst. 3-12C cycloalkyl or opt. subst. up to 10C aralkyl.

R is H, halogen or 1-4C alkyl; R1 is H, halogen or 1-4C alkyl, or R and R1 form a benzene ring opt. subst. by at least one halogen atom, NO2 gp., 1-4C alkyl gp., CN gp. or 1-4C alkoxy gp.; m is Ba, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Hg, Ni, Ag, Na, Sr, Sn or Zn cation; X is Cl, Br, I, SO4, NO3, acetate, perchlorate bisulphate, bicarbonate, oxalate, maleate, para-toluenesulphonate, carbonate or phosphate anion; a is 1 or 2; and n is the number of X to satisfy valency of m.

(I) have biocidal properties including bactericidal, fungicidal and algaecidal properties.



SCGR D22 68495 B/38 = US 4241-226
Prepn. of 2-nitro-2-methyl-propanol from 2-nitro propane - with formaldehyde, added as polyoxymethylene, in conc. reaction medium

SOC CHIM GRANDE PAROISSE 15.02.78-FR-004210
A25 E16 (23.12.80) *EP--4-211 C07c-79/18

15.02.79 as 012440 (3pp982)

Direct prepn. of crystalline 2-nitro-2-methyl-1-propanol (I) of at least 95% purity comprises condensing 2-nitropropane with HCHO in a molar ratio of 0.9-1.1:1.

Process comprises (i) adding less than half the HCHO, in liq. form,

to the 2-nitropropane and adding 1-10 m equivs. per mole of nitropropane of an inorganic basic catalyst, water being present as sole solvent in an amt. of 1.5-10%; (ii) adding with agitation the HCHO in solid form of polyoxymethylene, maintaining the temp. at 40-58 deg.C and pH 7-11; (iii) neutralising the reaction prod. about 55 deg.C with stearic acid up to a pH 4-5; and (iv) cooling, agitating with entrainment, with a current of inert gas, water, volatiles.

(I) is obtd. in high yield and purity and is useful as adhesive in tyres, a bactericide and a source of formaldehyde in a basic medium.

BOWA/ D22 73500 C/42 = WP 806
Prosthesis for blood vessel having porous inner wall - enabling passage of erythrocytes and thrombocytes) blood cells

BOWALD S 06.06.79-SE-004938

A96 P32 P34 + P31 (11.12.80) *BE-883-646 + A61b-17/11 A61/04.06.80 as SE0161 (11pp597) (E) SE-205320 DE2017330 US402 N(AU CH DE GB JP NL US)

Prosthesis comprises a tubular element made of an inert material which is (partially) non-resorbable and does not result in adverse tissue reaction. The concentric porous inner wall is fixed to a tubular organ and the wall enables the passage of blood cells such as erythrocytes and thrombocytes.

Arrangement enables the formation of an endothelial layer similar to natural blood vessels which has an antithrombotic effect preventing the possible formation of thrombs and blockage.

GROF/ ★ D22 01944 D/02 ★ WP 806
Pasteurising respiratory therapeutic equipment - in saline solution at 77 deg. C for 30 minutes

GROFF R F 08.06.79-US-047529

P34 (11.12.80) A01n-59/08 A61k-33/14 A61l-02/04
06.06.80 as U00705 (13pp295) (E) US1554027 US3365267 US341

US3801278 US4141956 US4165359 US4178499 N(DE GB JP) E(FR) A pasteurisation apparatus comprises an open-topped aluminum beaker filled with a saline solution and placed on a heater. The temp. is raised to at least 77 deg. C and respiratory therapeutic equipment is immersed in the solution for 30 mins. Pref. the soft Public Health Service standards for drinking. The apparatus is suitable for home use where a beaker of 500 ml. capacity is employed. The cost of non-iodised sodium chloride is less than that of glutaraldehyde used previously.

FOLE/ ★ D22 02004 D/02 ★ WP 806
Contact lens polymer contg. chemically bonded asepticising agent, e.g. prep'd. by carbon to carbon double bond polymerisation

FOLEY W M 20.06.79-US-050442

A96 (A14) (24.12.80) C08f-20/10
10.06.80 as U00698 (70pp200) (E) US3872128 US3927206 US4006147 N JP NO) E(AT CH DE FR GB LU NL SE)

Contact lenses comprise (a) a lens polymer and (b) an asepticising agent, (I), chemically bonded to the lens polymer so that (I) will not leach out of the lens polymer.

Contact lenses in which the polymer is a hydrogel are specifically claimed. Non-vinyl lens polymers can be used, e.g. silicone, cellulose acetate-butylate lenses. Bonded (I) retain their physiological activity but are non-irritating to the eye-tissue.

Suitable (I) include trichloro-tert. butanol, hexachloropropene, benzylkonium cpds., sulpha derivs. and subst. phenols.

See Also

D16 US4241182

D23: OILS; FATS; WAXES

ALBR ★ D23 00919 D/02 ★ GB 2050-365
1,8-Di-methyl-3-isobutetyl-4-formyl-cyclohexene isomer mixts. - contg. mostly 3,4-trans isomers, useful as perfume components

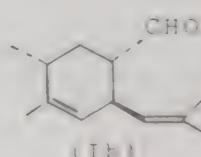
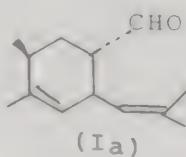
BUSH BOAKE ALLEN LT 06.05.80-GB-014969 (04.05.79-GB-015621)

E15 (07.01.81) C07c-175

06.05.80 as 014969 (6pp367)

New compsns. comprise mixts of the 4 stereoisomers of 1, 6-dimethyl-3-isobutetyl-4-formyl-cyclohexene (I), in which the 3,4-trans isomers of formulae (Ia) and (Ib) predominate:

The compsns. have an attractive herbal spicy aroma (unlike the mild woody aroma of known isomer mixts) and are useful as components of perfumes.

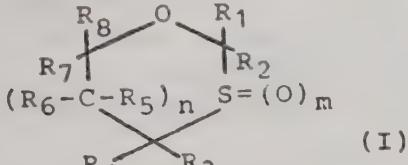


D23

13411 X/08 = J8 0048-778

ganoleptic oxathi(ol)anes - useful in foodstuff, feedstuff, pharmaceutical compsns. or as or in perfume
 ICH SA 16.01.75-CH-000520 (02.08.74-CH-010619)
 E13 + P15 (D13) (08.12.80) *DE2534-162 A23k-01/16 A23l-b-03/12 A61k-07/46
 94122 (20pp)

and 1,3-oxathiolanes are of formula (I) (in which (a) m or 1 and R1-8 are each H or an (un)substd. 1-11C linear alkyl gp., (b) n is 1 and m is 0 or 1; R1-4 are as above; R5 are each H and R6 forms a (5 or 6)loptane/cyclohexane ring with R8; (c) n is 1 and m is 0, R5, R6 and R7 are each H; R2 is H or lower alkyl; R4 is phenyl or (un)substd. cyclohexenyl and R8 is lower alkyl and m is 0 or 1; R1, R3, R5, R6 and R7 are each H; R2 is (p-nyl or (un)substd. cyclohexenyl; R4 is H or lower alkyl



(I)

(or lower alkyl).

used to modify, improve or reinforce the organoleptic of foodstuffs, feedstuffs, drinks, pharmaceuticals, tobacco prods. or perfumes or perfumed compsns.

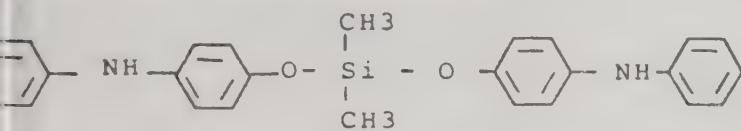
D23

01296 D/02 ★ SU -732-365

on of fats and oils - by using di:methyl-di:para-
 phenoxy silane as antioxidant adduct
 COMPDS BIOL 28.02.77-SU-457299

05.05.80) C11b-05
 457299 (3pp124)

ats can be stabilised against oxidation more efficiently by 0.001-0.1 wt.% of dimethyl-di-(p-phenylamino-phenoxy)- formula (I) and mol.wt. 426.57. The cpd. is obtd. by g p-hydroxy-diphenylamine with dimethyl-dichlorosilane c solvent, in the presence of ammonia. It is nontoxic, s temps. up to 370 deg. C and shows activity 100-1000 times an the known ethoxypolysiloxane oil.



D23

01297 D/02 ★ SU -732-366

etheral oils from citrus fruit - by treatment with caustic prescribed strength, removal of rind by abrasion, and sepn. of phases

SI UNIV 20.07.77-SU-509479
 30) C11b-09/02
 5 509479 (3pp124)

oils are extd. from citrus fruit more simply and efficiently g the latter with a 10-50% soln. of NaOH for 0.9-9 min. at 40- washing free of alkali, and removing the rind by abrasion potato peeling machine. The suspension is then sepd. by g, oil phase sepd. from the aq. phase and ethereal oils wax and traces of water by freezing. The fruit, still covered pith, remains suitable for consumption and processing juice.

D23

33794 A/19 = US 4239-923

ene derivs. contg. opt. esterified tert. hydroxyl gp. - are perfumery and are prepnd. from di:alkyl-cyclooctadiene, oxidation and redn.

L OIL CO 01.11.76-GB-045309
 (16.12.80) *DE2748-798 C07c-33/02

5 090769 (+ 25.10.77-US-844956)(4pp393) of alpha-linalool comprises (a) epoxidising 1, 5-cycloocta-1,5-diene by reaction with alkyl hydroperoxide in presence of Ti or Mo as catalyst to give 5,6-epoxy-1,5-dimethyl-1-ene (I), (b) reducing (I) with Na, K to Li in the presence of liq. ethylene diamine, diethylamine, pyridine or triethylphosphoric acid triamide to form 1,5-dimethylcyclooct-2-ene (II), and (c) thermally isomerising (II) at 350-650 deg.C. Product is a well known aroma chemical.

SCMZ ★

D23

Inexpensive prepn. of methofuran - from iso:pulegol by epoxidation, then oxidn. to iso:pulegone epoxide, then cyclo:dehydration

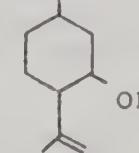
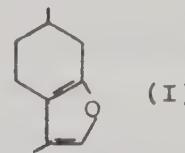
SCM CORP 04.09.79-US-072182

E13(E15) (23.12.80) C07d-303/12 C07d-307/79

04.09.79 as 072182 (4pp478)

Menthofuran (I) is synthesised as follows: (a) isopulegol (II) is epoxidised; (b) the resulting isopulegol epoxide (III) is oxidised to afford isopulegone epoxide (IV); and (c) (IV) is cyclodehydrated to furnish (I). All stereoisomers of (II)-(IV) are included.

This simple process affords (I) in good yield and free from by prods. from the readily available, inexpensive (II). (I) is used to formulate certain synthetic essential oils, esp. peppermint oil.



CANP

D23

Continuous treatment of tri:glyceride oil(s) with acid - by addn. of acid to hot oil, then intensive mixing in e.g. static-mixer

CANADA PACKERS LTD 19.12.78-US-971041

(23.12.80) *GB2038-863 C11b-03/04 + C09f-05/02

19.12.78 as 971041 (5pp931)

Crude triglyceride oils are contacted with an acid to remove phosphatides and heavy metals in a continuous process.

The method comprises continuously introducing the acid into a stream of heated oil which is then intensively mixed such that the acid is dispersed in the oil as droplets of size less than 10 microns dia., and the phosphatides instantaneously reacted with the acid. Pref. the acid-treated oil is later subjected to alkali-refining or bleaching and steam-refining.

The treated oils are esp. used in salad and cooking oils, margarines and shortenings.

ETHY ★

D23

Prepn. of alkyl-substd.-aldehyde(s) - by acid cleavage of 2,2-di:alkyl-tetra:hydro pyran(s), useful in perfumery compsns. and as intermediates, etc.

ETHYL CORP 26.02.79-US-015369

E17 (23.12.80) C07c-47/02

26.02.79 as 015369 (4pp478)

Alkyl-substd. alkanals (I) are prepnd. from 2,2-di-lower-alkyl-tetrahydropyrans (II) contg. 2 H atoms in the 6-position by treatment with a strong acid at 50-200 deg.C. The acid is H3PO4, polyphosphoric acid, PhSO3H, TSOH, HCl, or H2SO4. Reaction is pref. at 90-100 deg.C using H3PO4. (II) are pref. prepnd. in situ by treatment of a prim. 6-alken-1-ol (contg. 1 or more Me gps. in the 5-position) with the acid.

Process is simple and affords (I) in good yield free from the corresp. alkanoic acid. (I) are useful in perfumery, as substrates for testing the efficacy of antioxidants, and as intermediates for acids, alcohols, hydrazones, etc..

INFL ★

D23

Alkyl-3-cyclopentenyl:alkenyl cyclopentanol and cyclohexanol cpds. - used in conc. liq. detergents imparting sandalwood and cedar-wood aromas

INT FLAVORS & FRAGR INC 22.03.79-US-023322 (10.08.78-US-932677)

E15 (D21 D25) (23.12.80) C07c-35/21

22.03.79 as 023322 Div.ex 4173585 (48pp513)

Trimethylcyclopentene cpds. of formula (I) are claimed in which m / 0 or 1; one of the lines + + + is a single carbon-carbon bond and the other is a double carbon-carbon bond; and X is a carbinol gp. -(CHOH)-. Also disclosed are 2,2,3-trimethyl-3-cyclopenten-1-ylalkenyl and alkylidene sec. alkanols, alkanones, cycloalkanols and cycloalkanones. The cpds. are useful perfume and fragrance components e.g. in soaps, detergents, powders, colognes, etc., imparting rich, musky, cedar woody, sandalwood, sweet, floral, ionone-like, soft-fruity(apricot), green and earthy aromas with resinous topnotes and nutty oil nuances.



D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

PROC D25 14038 A/08 = GB 1582-290
 Sheet impregnated with long chain amine formate - added to laundry
 dryer to soften fabrics

PROCTER & GAMBLE CO 20.08.76-US-716302
 A97 E16 F08 (07.01.81) *BE-857-942 D06m-13/36

19.08.77 as 034910 (12pp977)
 Article of mfr. for fabric softening within an automatic clothes dryer
 comprises (a) softening compsn. comprising a formic acid salt of 12-
 22C alkyl prim. amine, and (2) dispersing means which provides for
 release of the softening compsn. within an automatic laundry dryer
 at the operating temp.

Softening and antistatic effect is imparted to the fabrics.

PROC D25 15920 A/09 = GB 1582-299
 Stable bleach particles - comprising solid peroxy acid coated with a
 surfactant

PROCTER & GAMBLE CO 27.08.76-US-718283
 E19 F06 (07.01.81) *BE-858-145 D06l-03/02

26.08.77 as 035955 (8pp977)
 Peroxy bleaching particles comprise an inner core of solid peroxy
 acid cpd. which is a water-soluble peroxy acid (salt) and as a coating
 an organic anionic, semi-polar or zwitterionic surfactant cpd. The
 surfactant is present in amt. 5-100 wt.% of peroxy acid cpd. and the
 coated particles have dia. 1-150 microns.

The particles maintain bleach effectiveness and fabric safety
 through improved solubility over an extended shelf period.

KAOS ★ D25 01107 D/02 ★ J5 5144-099
 Detergent compsn. contg. alkyl:ether fatty acid and ammonium
 salts - having excellent detergency and foaming properties and with
 no undesirable effects on skin

KAO SOAP KK 27.04.79-JP-052395
 A97 E12 (A25 E16) (10.11.80) C11d-01/65

27.04.79 as 052395 (9pp117)
 A detergent compsn. contains 5 to 30 wt.% an alkylether fatty acid
 salt of the formula R1-A-(CHR'-CHRO)n-B-COOM (R1 is a 6-22C
 alkyl or alkenyl gp. or an alkylphenyl gp. with a 6-17C alkyl gp., R'
 and R are, respectively, H, Me or Et gp. (but any one of R' and R is
 H), A is O or S, B is 1-3C alkylene gp., M is an alkali(ne earth) metal,
 ammonium, or 2-4C alkanolamine, and n is 0 to 20) and 1-10 wt.% an
 alkylammonium salt of formula NR3R4R5R6(+)-X(-) (R3 is a 6-15C
 alkyl gp., R4, R5 and R6 are, respectively, a 1-3C alkyl,
 hydroxyalkyl, or -(C2H4O)mH gp. (m is 1 to 10), and X a halogen or a
 monoalkyl sulphuric acid gp. with a 1-3C alkyl gp.).

The detergent compsn. has not only a very moderate action on skin
 but also excellent deterging force and excellent foaming agency, and
 thus is effectively applicable to the washing of table ware,
 vegetables, hair, human body, silk, wool, acetate fibre, etc.

DAIKI ★ D25 01108 D/02 ★ J5 5144-100
 Cleaner comprises halogen free organic solvent and fluorinated
 alcohol - removes soil and stains of resin contg. products e.g. paint,
 ink, abrasive and flux, from surfaces

DAIKIN KOGYO KK 27.04.79-JP-053041
 (10.11.80) C11d-07/60

27.04.79 as 053041 (4pp117)
 Compsn. contains a halogen-free organic solvent (a) e.g., hexane,
 octane, petroleum ether, nitromethane, nitrobenzene,
 cyclohexylamine, ethanolamine, methyl or propyl alcohol, ethylene
 glycol, isopropyl ether, propylene oxide, acetone, ethyl acetate,
 aceto nitrile, CS2, etc., and a fluorinated alcohol (b) of the formula
 X(CnF2n)CmH2mOH (X is H or F, m is 1 to 3 and n is 1 to 10), e.g.
 H(CF2CF2)aCH2OH, H(CF2CF(CF3))bCH2OH, etc. in an (a)/(b) wt.
 ratio of 95 to 30/5 to 70. The compsn. may contain a surfactant, e.g.
 alkylbenzenesulphonates, alkylsulphates, etc., and a stabiliser, etc.
 The compsn. can dissolve and remove resin stains and soil.

HERC ★ D25 01233 D/02 ★ NL 8003-241
 Cellulose ether with long-chain hydrocarbon substit. - insoluble in
 water, soluble in surfactants, for detergent compsns.

HERCULES INC 06.06.79-US-045819
 A11 (A97) (09.12.80) A61k-07/08 B01f-17/42 C08b-11/19

04.06.80 as 003241 (16pp510)
 Cellulose ether (I) has CH3, hydroxyethyl or hydroxypropyl gps. as
 non-ionic substs., in amt. such that the ether is water-sol., and also
 carries a 10-24C hydrocarbon radical in an amt. between the amt.
 which renders the ether water-insol. and 8 wt.% w.r.t. the total wt.

of the modified ether.

(I) is used in detergent compsns., and as an emulsifier
 systems.

BADI

D25 15064 C/09 = US 421121
 Mechanical clear rinsing of vessels - using bath contg. quat. v.
 quat. carboxylic acid or their ester

BASF AG 03.08.78-DE-833991
 E19 (16.12.80) *EP---8-059 C11d-01/72 C11d-03/20 + C11d-07/23
 23.07.79 as 059776 (4pp936)

Dishes are machine washed using several cleaning and
 cycles. Rinsing is effected with oxyalkylated cpds contg. ac.
 atoms and solubilisers, opt with mono- or polyhydric alcohols

The improvement is that a rinsing liquor concentrate is em.
 which contains di-, tri- or tetrahydric alcohols, mol.
 (hydroxy)carboxylic acid or their mixts. Alcohols and acids
 9C atoms, of which 1C atom is quat. Alcoholic OH gps are pr.
 the carboxyl gp is bonded to the quat C atom. Amt of cpd cont.
 C atom is at least 0.2 wt% based on wt concentrate.

More effective rinsing is achieved esp when washing
 porcelain or glasses.

FINE- ★

D25 01511 D/02 ★ US 421121
 Cationic surfactant compsns. compatible with anionic surfact.
 contg. di:ethyl sulphate salts of cyanoethylated fatty acid am.
 for cleaning and conditioning hair etc.

FINETEX INC 11.12.79-US-102555 (05.03.79-US-017186)
 E16 (D21) (16.12.80) C11d-01/04 D06m

11.12.79 as 102555 (5pp478)

Cationic surfactant compsn. consists of a mixt. of the
 sulphate salts(III) and (IV) respectively) of the cyanoethylated
 acid amides RCONH(CH2)2N(CH2CH2CN) (CH2)2NH(CH2)2CN
 and (RCONH(CH2)2N(CH2CH2CN)(CH2)2NHCOR) (II). (III) and
 are present in mol.% ratio 1:2-3. In the formulae R is
 unbranched hydrocarbon.

The compsn. is compatible with anionic surfactants, and
 with H2O affords a cleaning system which is extremely useful
 simultaneous cleansing and conditioning of human hair, fab.
 textiles, etc. In addn., the compsn. has high stability and long
 life.

PROC ★

D25 01514 D/02 ★ US 421121
 Air sensitive detergent packaged in heat sealed pouch - comp.
 laminate of inner and outer polymer layers and interme.
 aluminium foil and paper layers

PROCTER & GAMBLE CO 19.06.79-US-050032
 A92 P73 Q34 (16.12.80) B32b-15/08 B65d-75/26 B65d-81/22
 19.06.79 as 050032 (3pp966)

A granular detergent compsn. comprises air sensitive comp.
 (I) in a pouch formed by heat sealing a laminate of (a) outer layer
 0.0005-0.001 (0.0005) inch of oriented polypropylene, polyester
 cellophane of m.pt. above 350 deg.F (b) layer of Al foil of thickness
 0.0003-0.0005 (0.0003) inch, (c) layer of paper of basis wt. per rea.
 50, (25) lbs. and (d) inner layer of thickness 0.001-0.002 (0.001)
 comprising a hot melt glue of polyethylene and/or wax having
 m.pt. of 150-350 deg.F. The pouch has a reclosable spout.

The laminate provides good dead fold and reseal prop.
 allowing the spout to be closed up or opened by simply folding the
 fold (as in milk cartons) at the top of the pouch.

ALBR

D25 33801 A/19 = US 421121
 Stable detergent powder prodn. - by adding a conc. gel-forming
 alkoxylated alcohol soln. to the other spray-dried components

ALBRIGHT & WILSON LTD 02.11.76-GB-045509
 E17 (16.12.80) *DE2748-854 + C11d-07/54
 31.10.77 as 847379 (3pp974)

Solid powdered detergents having at least one ethoxylated
 contg. an ave. of 10-18C in the alcohol and an ave. of 6-12
 radicals are mfrd. by adding the ethoxylated alcohol in liq. for
 spray-dried powder detergent mixt. contg. 1-7 wt% re.
 unbound water.

The alcohol is in aq. soln. at a concn. higher than the min. at
 a gel is formed and in sufficient proportion so that, when ad.
 with the spray-dried mixt. it forms an immobile gel on the P.
 forming the mixt. Pref. the alcohol gp. has an ave. of 12-14C.

D25 15065 C/09 = US 4239-641
for detergent slurries - comprising alcohol, acid, ester contg. a quat. carbon atom
03.08.78-DE-834073
2.80) *EP--8-060 C11d-03/06 + C11d-11/02
77 (4pp964)

slurries of detergents and cleansers is adjusted by or tetrahydric aliphatic alcohols, monobasic aliphatic acids, hydroxycarboxylic acids, esters of the alcohols mixts. of these. The acids and alcohols contain 5-9C one quat. atom. The alcohols and hydroxycarboxylic acids are very prim. alcohol gps; and the (hydroxy)carboxylic -COOH gp. bonded to the quat. C. regulator used is at least 1wt.% based on solids content. The regulators act to reduce viscosity of the slurries, the slurries against fluctuations in viscosity. A specific eopentyl glycol hydroxypivalic acid ester.

D25 46664 C/27 = US 4239-659
e or phosphate-free detergent - contg. mixt. of nonionic surfactants providing good release of particulate and

fabrics
R & GAMBLE CO 15.12.78-US-969909
26) (16.12.80) *EP--12-483 C11d-01/83
909 (10pp964)

mpsn. contg. 0-20% phosphate materials comprises 5- of a surfactant mixt. consisting of (a) a nonionic HLB 5-17; and (b) a cationic surfactant of formula - (I) (where R is 20-30C alkyl, each R' is 1-4C alkyl or benzyl with not more than 1 R' being benzyl; and Z selected from halides, hydroxide, nitrate, sulphate and es. The ratio by wt. of the nonionic surfactant to the cationic is 3:1-15:1 (4:1-10:1). Pref. the pH of the compsn. is

ns. provide excellent particulate and greasy/oily soil I additionally provide fabric softening, static control, and dye transfer inhibition.

D25 01520 D/02 ★US 4239-660
ergent compsns. - contg. nonionic and cationic ext., with inorganic alkaline cpd.
R & GAMBLE CO 13.12.78-US-969115 (23.12.77-US-

25 E14) (16.12.80) C11d-01/83 C11d-03/10

115 C.i.p. 864135 (12pp478)
ists of: (a) 2-95% of a surfactant mixt.; and (b) 1-25% of alkaline cpd. (borax.10H2O, borax. 5H2O, Na2CO3, or the compsn. has pH 8-10 within 3 min. of being placed approx. 0.15%) at 100 deg.F.

ntains: (i) a nonionic surfactant (III) of HLB 5-17; and surfactant R2-(Z1)a-(R3)n-Z2-(CH2)m-N(R1)3(+)X(-) (I) [(CHR'2)n'O)y-(Z'1)a'-(R'4)t-Z'2-(CH2)m-N(R'1)3(+)X(-) (I) and/or (II) of 1-100:1.

ulae, each R1,R'1 is 1-4C (hydroxy)alkyl; R2 is 5-30C d alkyl, alkenyl, alkylbenzyl, alkylphenyl or X(-); s is 0-5; R3 is 1-20C alkylene or alkenylene; a and n is only when n is 1); mm' is 1-5; Z1 and Z2 is -CO2-, OCO, O, -NH-, -N1HCO-, -OCONH-, -NHCO2- (at least one is r or amide); X is anion to make the surfactant at least ole; R'2 is Hor1-3C alkyl; R'3 is 4-30C opt. branched or alkylbenzyl; R'4 is 1-10C alkylene or alkenylene; n is t' is 0 or 1 (a is 1 only when t' is 1); Z'2 is -CO2-, CO, O, -CO-, -OCONH-, -NHCO2- and Z'1 is -CO- or -C1ONH- so attached to (+)N(R1)3 in (II) is an alkyl or alkenyl gp. interrupted by only -CO2-, -OCO-, -C1ONH-, -NHCO-, O, NH- or -NHCO2-.

ns. are storage stable, and show excellent particulate oily soil removal props., as well as imparting fabric static control and dye transfer inhibition benefits to

D25 64914 B/36 = US 4239-662
g compsn. e.g. for heavy duty cleaning - contains olefin sulphonate, ethoxylated alcohol and magnesium

R & OIL KK 17.02.78-JP-017237
25 E33) (16.12.80) *DE2906-074 C11d-01/14
2519 (6pp964)

nt compsn. comprises (a) water; (b) 5-40wt.% of a 10-20C alpha olefin sulphonate; (c) 1-8wt.% of an addn. C prim. alcohol with average of 1-20 moles of ethylene le of prim. alcohol, or addn. prod. of 9-18C sec. alcohol of 3-15 moles of ethylene oxide permole of sec. alcohol; t.% Mg sulphate. The components (b), (c) and (d) are in m and the wt. percents given are based on the total. The compsn. further comprises up to 1.5 wt.% ethanol. n. has decreased tendency towards film formations on when exposed to air, without loss in detergency and er.

MAGN- ★

D25 01539 D/02 ★US 4239-695
Amino phosphonic acid prodn. from nitrile cpds. - by reaction with phosphorous acid

MAGNA CORP 24.03.77-US-780883

E11 H01 M14 (16.12.80) C07c-121/16 C07d-213/53 C07f-09/38
24.03.77 as 780883 (6pp367)

Prepn. of amino phosphonic acids of formula H2N-C (PO3H2)2-X (I) is carried out by reacting nitriles of formula X'-CN (II) with H3PO3 at 100-200 deg. C. In the formulae X is R, R'-CNH2(PO3H2)2, (CH2CH)n or R'-CN; X' is R, R'-CN or (CH2CH)n; R is opt. satd. 1-22C aliphatic gp., phenyl, benzyl, naphthyl or a subst. aliphatic or aromatic gp.; R' is a divalent 1-10C aliphatic gp.; n is at least 2.

(I) are surfactants with chelating properties, e.g. useful as water softeners, scale inhibitors (e.g. for use in oil prodn. systems), corrosion inhibitors, thinners for aq. slurries of inorganic materials and detergent builders. The process gives high yields (e.g. 49-86%) without the use of highly corrosive reagents.

CIBA

D25 42487 A/24 = US 4239-915
Bis:per:fluoroalkyl gp.-contg. carboxylic acid surfactant - prepnd. from per:fluoroalkyl-thiol and aldehyde- or keto-acid

CIBA GEIGY CORP 02.12.76-US-747114

A60 E16 F06 (F09) (16.12.80) *DE2753-128 + C07c-51/34
02.12.76 as 747114 (7pp918)

Perfluoroalkyl acid for formula (I) is new where Rf is 1-18 (pref. 6-12)C perfluoroalkyl opt. subst. by 2-6C perfluoroalkoxy. R1 is an opt. branched 1-12C (pref.2-8)C alkylene, 2-12(pref.2-8)C alkylenealkylenealkylene, 2-12 (pref.2-8)C alkyleneoxyalkylene or 2-12(pref.2-8)C alkyleneiminoalkylene where the N is also subst. by H or 1-6C alkyl (or pref. methyl). R2 is H, opt. branched 1-6C alkyl, phenyl, up to 18C alkyl subst. phenyl or -B-COOH where B is up to 18C alkylene or a covalent bond. Five cpds. are specifically claimed including 4,4-Bis(1,1,2,2-tetra-hydroperfluorodecylthio)pentanoic acid.

Cpds. are useful in textile treatment or can be used in chromium complexes with oil and water repellent properties. They are also used in prepn. of surfactants.



RHON

D25 33374 B/18 = US 4240-918
Anti-soil and anti-redeposition detergent compsn. - partic. for polyester, contains hydrophilic polymer with solubiliser and water-repellent

RHONE-POULENC INDUSTRIES 02.11.77-FR-033486
A97 (A23 A25) (23.12.80) *BE-871-715 C11d-03/20 C11d-07/54
02.11.78 as 957058 (12pp964)

Antisoiling and antiredeposition agent formulation comprises (i) polymer A which is hydrophilic polyurethane and/or a copolyester having anti-soiling and antiredeposition properties; (ii) at least one solubilising and dispersing agent B for the polymer (A); and (iii) at least one water repellent C present in sufficient amt. to act as water repellent C present in sufficient amt. to act as water repellent for B. Specific copolymers A comprise recurring units of alkylene terephthalate and of polyoxyalkylene terephthalate. Pref. B is soluble in water and has a m.pt. of 35-150 deg.C.

The antisoiling and antiredeposition properties are retained during storage of detergents contg. the formulation.

JOHS

D25 41937 C/24 = US 4240-919
Stable liq. abrasive scouring compsn. - contg. abrasive, bleach, light density filler, and multivalent metal stearate to give thixotropy

JOHNSON S C & SONS INC 29.11.78-US-964318
E12 (23.12.80) *EP--11-984 C11d-03/39 + C11d-17/08
29.11.78 as 964318 (6pp931)

A stable, liq., abrasive cleaning compsn. comprises 1-60 wt.% of a water-insoluble particulate abrasive, 0.1-10 wt.% of bleach, 0-20 wt.% of a non-multivalent stearate surfactant, 0-10 wt.% of a bleach stable electrolyte, 5-20 wt.% of a light density filler, 0.05-10 wt.% of a multivalent stearate soap, and water.

The compsn. contains at least some electrolyte or non-multivalent stearate surfactant, and is free of bodifying agents e.g. colloidal silica, atapulgites, smectites, and/or diatomaceous earth.

The abrasive is e.g. titanium dioxide, silica sand, calcium carbonate, and the bleach stable electrolyte can maintain a compsn pH of 10.5-14. The filler is e.g. powdered polyethylene, -polypropylene, -polystyrene or glass microspheres, and the stearate soap is aluminium mono-, di- or tristearate, calcium-, zinc-, magnesium- or barium stearate, in opt. mixt..

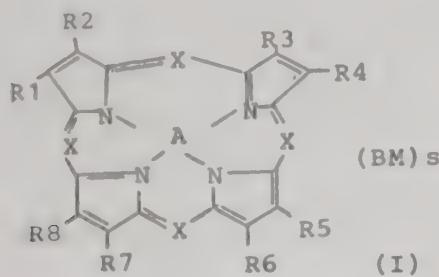
Prod. is easy to dispense and large scale settling and packing does not occur.

PROC D25 84996 B/36 = US 4240-920
 Detergent bleach compsn. effective under dark conditions -
 comprising a surfactant and peroxy and porphin bleaches
 PROCTER & GAMBLE CO 28.02.78-CA-297842
 E19 (23.12.80) *EP--4-861 *C11d 07/38

27.02.79 as 015677 (19pp945)
 Stains are removed from cotton fabrics using a detergent bleach
 compsn comprising (A) surfactant, (B) peroxy bleach and (C)
 porphine bleach. (A) is an anionic, nonionic, semipolar, ampholytic
 or cationic surfactant and comprises 5-50 wt.% of the compsn.

(B) has available O content of 0.2-5.0 wt.% based on the compsn.
 and is an alkali metal perborate, percarbonate, persulphate,
 persilicate perphosphate or perpolyphosphate, urea peroxide or an
 organic peroxy acid or its anhydride or salt of formula HO-O-CO-R-
 Y (where R is 1-20C alkylene or phenylene and Y is H, halo, alkyl or
 aryl).

(C) comprises 0.001-0.5 wt.% of the compsn. and has formula (I), X
 is N or CY in which each Y is H, or meso-substd. (cyclo)alkyl,
 (alk)aryl, aralkyl or heteroaryl. Each R is independently H or
 pyrrole substd. (cyclo)alkyl, (alk)aryl, aralkyl or heteroaryl, or
 adjacent R gps. combine to form pyrrole substd. alicyclic or
 heterocyclic rings. A is 2H atoms bonded to diagonally opposite N
 atoms, divalent Zn, Cd, Mg or Ca, Al (III), Sc (III) or Sn (IV). B is a
 defined anionic, nonionic or cationic solubilising gp. attached to Y or
 R; M is its counter-ion and S is an integer.



STAU * D25 01771 D/02 ★US 4240-920
 Alkaline detergent concentrates for bottle washing - contg.
 nonionic surfactants and an alkyl glycoside or glycidyl ether
 STAUFFER CHEMICAL CO 28.03.79-US-024632 (13 12 7,
 750036)
 A97 (23.12.80) C11d-01/72 C11d-07/06
 28.03.79 as 024632 C.i.p.4147652 (+ 3.5.78-US-902301)(4pp387)
 Water-based liq. cleaning concentrates contain 10-35 wt. %
 metal hydroxide (I) and 10-50 wt.% of a mixt. of
 polyoxyethylene-polyoxypropylene condensate with
 depressing tendencies at less than 40 deg. C, (b) a
 ethoxylated alcohol, and (c) an alkyl glycoside or a glycidyl ether
 a 12-24C alcohol or an alkylphenol. The (a):(b) wt. ratio is ca. 1:
 the wt. ratio of (a) + (b) to (c) is 5-10:1.

The concentrates can be diluted with water or aq. (I) to
 low-foaming compsns. for washing bottles and other food
 beverage containers. They can be prep'd. without using solid (I).

FARH D25 70391 B/44 = US 4240-920
 Colourless tetra:acetyl-ethylene di:amine prepn. - by diaz-
 ethylene di:amine acetylation with acetic anhydride opt. with ke-
 addn.

HOECHST AG 21.02.79-DE-906606 (14.04.78-DE-816174)
 E16 (23.12.80) *EP--4-919 C07c-102

11.04.79 as 029258 (5pp974)
 N,N,N',N'-Tetraacetylene diamine (I) is mfd. by acetyla-
 N,N'-diacetylene diamine (II) with acetic anhydride (III) at
 170 deg.C. Process comprises (a) using (II) and (III) at a wt. rat.
 1:1-10; (b) stopping before the reaction equilibrium between (I)
 (II) is attained; (c) purifying the brown reaction mixt. after or be-
 the sepn. by crystallisation of (I) in order to remove the dy-
 impurities and (d) recycling the purified and recovered reac-
 components not completely reacted to the acetylation.

(I) is an important additive for detergents where it serves
 perborate activator.

See Also

D23 US4241228

76 ABBOTT LABORATORIES B03 D22 = GB 1582-483
 hyl deriv. of antibiotic XK-88-5 - 13392A/07

79 AERATION IND INC D15 J02 = US 4240-990
 f liquid by pumping past gas nozzle - 85934B/47

79 AMER HOSPITAL SUPPL CORP A96 B04 D16 S03 *WP 8002-
 for turbidimetric lipase assay - 01965D/02

8 AIR PRODUCTS & CHEM INC D15 F09 = US 4239-589
 ous black liquor oxidn. and concn. - 27724C/16

76 ALBRIGHT & WILSON LTD D25 E17 = US 4239-640
 ergent powder prodn. - 33801A/19

79 BUSH BOAKE ALLEN LT D23 E15 *GB 2050-365
 thyl-3-isobut enyl-4-formyl-cyclohexene isomer mixts. -
 2

80 BUSH BOAKE ALLEN LT D23 E16 = GB 2050-350
 thyl-heptene-nitrile(s) - 77470C/44

79 ALCOOL DO ESTADO SAO PAU D16 J01 *BR 7903-741
 ve condenser for use in alcohol vapour distn. system - D/02

75 AKZONA INC A96 D22 F01 (A14) *US 4240-937
 sorbent cellulose fibre for tampon mfr. - 01779D/02

79 AKZONA INC D22 E13 *US 4240-926
 on type and degree indicator - 01774D/02

79 AKZO NV D16 = PT -71-369
 emoval from fermented drinks - 75366C/43

9.76 AMER CHEM REFINING D15 M25 (M11) = CA 1090-584
 metal precipitation and cyanide decomposing agent -
 29

06.79 AMERICAN MONITOR CORP B04 D16 S03 S05 #GB 2050-
 c determination of tri-glyceride(s) in serum - 44032B/24

1.77 AMERICAN STERILISER CO D22 E13 *US 4239-731
 ods sterilisation with ethylene oxide - 01557D/02

2.79 AMER STERILIZER D22 = US 4241-010
 isation for biocidal treatment of goods - 82930C/47

2.75 AGENCE NAT VALORISATION B07 D16 = AT 7600-837
 sions of metabolisable vegetable oils - 65270X/35

0.76 APOTHEKERNES LAB FU A/S C01 D13 = IL --53-066
 eed additive contg. zinc bacitracin - 10348A/06

4.79 AQUATIC DIET TECHNO C03 D13 *US 4239-782
 for enhancing the colour of fish - 01575D/02

3.75 ARAKAWAE D15 = J5 1102-353
 or purifying water - 00446D/01

3.79 EOURME SOC ARMENT A88 D14 = FR 2451-253
 rollers for cleaning feed roll teeth on food skinning machine -
 22

0.73 ASAHI GLASS KK D15 E33 = J8 0049-009
 of fluorine from waste water - 66325W/40

5.76 ASAHI KASEI KOGYO D15 E36 = US 4240-376
 water in fish tank - 11105A/06

3.79 ASAMA CHEM CO LTD D21 = FR 2451-192
 or preventing mouth odour due to food or drink - 70020C/40

06.79 AUGUSTINI AK H B04 D16 = WP 8002-848
 of Myxococcus fulvus and its extracts - 00129D/01

.76 BASF AG C03 D13 = GB 1582-397
 based on brewer's yeast - 04345A/03

.76 BASF AG C03 D13 = IL --52-940
 rervative for animal feed - 25194A/14

.78 BASF AG D25 E19 = US 4239-552
 cal clear rinsing of vessels - 15064C/09

.78 BASF AG D25 E17 = US 4239-641
 modifier for detergent slurries - 15065C/09

.77 BATIELLE MEMORIAL I C03 D13 = US 4241-089
 ddate based ruminant feedstuff - 89608A/49

.79 BATTELLE MEMORIAL D15 J01 X25 *WP 8002-650
 faq. sludge, e.g. from waste water treatment - 01946D/02

.75 BEATRICE FOODS CO D13 = CA 1090-652
 eese substitute or extender - 46868Y/26

.79 BEATRICE FOODS CO D12 *WP 8002-788
 fried snack food prodn. - 01985D/02

.79 BECTON DICKINSON CO D16 *US 4241-188
 anisms culture bottle with stopper lock - 01904D/02

2.78 BEDROSIAN & ASSOCIA A92 D13 (A11 A17) #CA 1090-744
 ed atmosphere tomato package - 28703A/15

77 BEIERSDORF AG B05 D21 E16 = AT 7806-782
 and parodontosis inhibiting dental and/or oral hygiene compsns. -
 04

74 GEBR BELLMER MASCH D15 J01 = J5 0125-366
 of liquids from sludges - 59038W/36

5.78 BENCKISER-KNAPSACK D13 E17 (D17) = US 4239-922
 ohol esp. xylitol prepns. - 03828C/03

.77 BENECKE J H GMBH A87 D22 = US 4240-416
 te absorbent sheet for hygienic and medical uses - 68978A/39

.78 BIOCHEMIE GMBH B04 D16 *AT 7802-193
 cc substance mfr. - D/02

* BIOL- 02.08.79 BIO-LAB INC D15 *US 4241-025
 Chlorinator holding stack of horizontal soluble sticks - 01824D/02

BOEF 06.05.75 SUDDEUTSCHE ZUCKER B03 D13 E13 = SE 8005-510
 Glucopyranosido-1,6-mannitol used as sugar substitute - 70494X/38

BORW 13.12.76 BORG WARNER CORP D15 E11 L02 M14 = CA 1090-
 818

Tris-hydroxymethyl-ethyl-phosphonic acid - 44422A/25

BOWA/ 06.06.79 BOWALD S A96 D22 = WP 8002-641
 Prosthesis for blood vessel having porous inner wall - 73500C/42

BRBL 12.03.79 BRAUNSCHWEIG MASCH D17 = FR 2451-398
 Installation to purify juice in mfg. beet sugar - 41510C/24

* BREW- 21.07.78 BREWSTER LAB INC A96 D21 *US 4240-760
 Foam scrubbing device - 01710D/02

BRIM 02.04.79 BRISTOL MYERS CO B02 C02 D16 (D13) = GB 2050-384
 Antitumour antibacterial complex BBM-928 and individual components -
 73461C/42

BRPE 08.11.76 BRITISH PETROLEUM LTD D16 = GB 1582-530
 Polyploid asporogenic yeast prep. from a sporogenic yeast - 55487A/31

BRVI- 05.09.75 BRITISH VINEGARS D16 = AT 7606-424
 Separating water from aq. solns. esp. from vinegar - 16457Y/10

BRVI- 05.09.75 BRITISH VINEGARS D16 = CA 1090-650
 Separating water from aq. solns. esp. from vinegar - 16457Y/10

BUCL 21.07.75 BUCKMAN LABS INC A97 C03 D15 = J8 0049-042
 Control of algae in water - 83123X/45

BURR- 04.04.77 BURRUS F J & CIE A97 D18 (A14 A81) = AT 7704-159
 Cigarette filter cover strip - 49875A/28

BURR- 04.04.77 BURRUS F J & CIE A97 D18 (A14 A81) = AT 7704-160
 Cigarette filter tip - 49876A/28

BUTL- 18.08.78 BUTLER COUNTY MUSHR B04 D16 = GB 2050-134
 Cell cultivation on solid substrate - 16783C/10

* BUTT= 16.02.78 BUTTER CHEESE IND D13 S03 X25 *SU -733-614
 Pepsin determination in milk-curdling preparations - 01328D/02

BYDG- 05.06.79 BYDGOS BUDOWN PRZEM D15 = GB 2050-338
 Compact treatment system for water or sewage - 00214D/01

* CADB 04.02.78 CADBURY TYPHOO LTD D13 *GB 1582-319
 Low fruit content jam substitute - 00873D/02

CANP 19.12.78 CANADA PACKERS LTD D23 = US 4240-972
 Continuous treatment of tri:glyceride oil(s) with acid - 54003C/31

* CERT- 16.06.78 CERTEK INC D22 S05 T06 *US 4241-020
 Formaldehyde decontamination of space - 01823D/02

* CHAL/ 29.05.79 CHALMERS E D21 S05 *WP 8002-640
 Electrical hair removal treatment - 01941D/02

* CHCO= 28.02.77 CHEM COMPDS BIOL D23 E11 *SU -732-365
 Stabilisation of fats and oils - 01296D/02

CHET 03.05.76 CHEMETRON CORP B04 D16 S03 S05 (V05) = GB 1582-
 303

Analysis of biological specimens by ionising heat decomposition prods. -
 85018Y/48

CHET 14.03.77 CHEMETRON CORP B04 D16 S03 S05 (V05) = GB 1582-
 304

Analysis of biological specimens by ionising heat decomposition prods. -
 85018Y/48

* CHEV/ 13.03.79 CHEVRIER A V D16 K01 *FR 2451-201
 Extinguishing powder contg. vegetal prod. pref. of marine origin -
 00841D/02

CHIN 20.11.78 CHINOIN GYOGYSZER A96 B04 D21 = AT 7907-385
 Cyclodextrin inclusion complexes contg. camomile extract - 23769C/14

CHPR- 22.04.76 INST PRZEMYSLU FARMACEUT B05 C03 D16 = GB
 1582-378

(N)-Glucosyl derivs. of polyene macrolide antibiotics - 59473Y/34

CIBA 02.12.76 CIBA GEIGY CORP A60 D25 E16 F06 (F09) = US 4239-
 915

Bis:per:fluoroalkyl gp.-contg. carboxylic acid surfactant - 42487A/24

CIBA 11.05.77 CIBA GEIGY AG B05 D21 E14 = GB 1582-420
 2-Phenylamino phenyl acetyl amide(s) - 82116A/46

CIBA 11.04.79 CIBA GEIGY AG A60 D25 E24 F06 = J5 5143-940
 Di:styryl-bi:phenyl derivs. contg. amino or ammonium gps. - 90527C/51

CIBA 13.06.79 CIBA GEIGY AG B04 D16 = WP 8002-848
 Cultures of Myxococcus fulvus and its extracts - 00129D/01

* CIBA 27.06.79 CIBA GEIGY AG B03 D22 *PT --71-433
 4-Oxa 6-aza 6-phenyl spiro (2.4) heptano-5,7 diones prepns. - D/02

CIGA 08.12.75 CIGARETTE COMPONENT LTD A88 D18 (A17) = AT
 7609-074

Filter tips for tobacco smoke - 69284Y/39

CNRS 29.06.76 INST NAT SANTE RECH MED B04 C03 D16 = GB 1582-
 294

Antischistosomal immunological agent - 75958Y/43

* COKE 04.12.78 COCA-COLA CO D15 *US 4240-267
 Beverage carbonation with liquid carbon di:oxide supply - 01666D/02

* COLG 22.03.71 COLGATE PALMOLIVE CO A96 B05 D21 (B06) *US 4241-
 049

Stabilisation of antibacterial dentifrice - 01836D/02

COLG 15.12.75 COLGATE PALMOLIVE CO D25 E13 F06 (D21 D22 E37)
 = CA 1090-505

Bleaching compsn. contg. peroxy cpd. activator and zeolite cpd. -
 27225Y/16

COLG 30.06.76 COLGATE PALMOLIVE CO D21 E34 (E24) = CA 1090-706
 Sodium bi:carbonate-contg. mouth-wash compsn. - 05991B/03

COLG 19.08.76 COLGATE PALMOLIVE CO A96 D22 = GB 1582-475
 Absorbent pad for use as disposable napkin, sanitary towel etc. -
 02136A/02

COLG

COLG 08.06.79 COLGATE PALMOLIVE CO A96 B05 D21 (A14 B04) #NL 7904-545
 Magnesium poly carboxylate complex anti-tartar compsns. - 79129B/44
 COLG 24.08.79 COLGATE PALMOLIVE CO B05 D21 E11 = BE -884-896
 Oral compsn. contg. water, antibacterial and anti-plaque agent - 73370C/41
 CONV- 18.12.78 CONIRON INC D16 = US 4241-186
 Prodn. of nutrient substrates contg. low methoxy pectin - 48398C/28
 *COOP- 11.06.79 COOP CENT PROD ACUC D16 J01 *BR 7903-741
 Evaporative condenser for use in alcohol vapour distn. system - D/02
 CORG 01.06.79 CORNING GLASS WORKS D15 = GB 2050-337
 Appls. for biological processing of organic wastes - 90384C/51
 CORP 12.01.78 CPC INTERNATIONAL INC D17 E13 (D16) = AT 7900-010
 Preparing high purity maltose crystals from starch hydrolysate - 52537B/29
 COUE 14.08.78 COULTER ELECTRONICS INC B04 D16 S03 S05 = US 4241-179
 Transaminase determin. in biological fluids - 14730C/09
 CUMB 17.12.76 CUMBERLAND PACKING B03 D13 E13 (B02) = IL --53-495
 Neohesperidine or naringin di:hydro-chalcone sweetening compsns. - 42126A/23
 CUTT 15.05.79 CUTTER LABS B04 D16 = NO 8001-443
 Cultivating influenza virus for vaccine prodn. - 86753C/49

*DAIK 27.04.79 DAIKIN KOGYO KK D25 *J5 5144-100
 Cleaner comprises halogen free organic solvent and fluorinated alcohol - 01108D/02
 DAME/ 23.08.71 DAMESAR HA D13 E17 (D12) = J8 0048-790
 Preserving food - 42562U/30
 DECI- 15.03.79 DEC INT INC D13 = FR 2451-157
 Mixer pan for completing cheese processing - 70021C/40
 DEGS 16.02.73 DEUTSCHE GOLD & SILBER C03 D13 #US 4241-085
 N-acylmethionine feed additives - 46773U/33
 DENT- 03.05.79 DENTAL THERAPEUTICS D21 = SE 7903-856
 Plaque-dissolving tooth-paste - 86329C/48
 DERV= 13.03.79 DERVENEV CHEM WKS D22 E21 F06 = FR 2451-388
 Reactive azo dyes with antimicrobial activity - 70047C/40
 DERV= 13.03.79 DERVENEV CHEM WKS D22 E21 F06 = J5 5144-055
 Reactive azo dyes with antimicrobial activity - 70047C/40
 *DESP 29.06.78 DESOTO INC D22 E33 G02 *US 4239-541
 Mildew sealing coating compsn. - 01463D/02
 *DORI- 24.08.79 DORIS-COSMETIC EBER D21 *AT 7905-695
 Cosmetics prods. mfr. - D/02
 DOWA 14.12.77 DOWA MINING KK D15 J01 M25 = US 4241-039
 Removal of arsenic from solns. of sulphuric acid - 29781B/16
 DOWC 30.04.79 DOW CHEMICAL CO D17 E36 = BR 8002-693
 Recovery of hydrochloric acid from a cellulose hydrolysate - 82991C/47
 DOWO 12.03.79 DOW CORNING CORP D22 E19 = FR 2451-196
 Modifying surfaces to reduce microorganisms in the environment - 62273C/36
 DOWO 07.06.79 DOW CORNING CORP A96 D21 = GB 2050-162
 Anti-perspirant emulsion compsn. - 34603C/20
 DOWO 07.06.79 DOW CORNING CORP A96 D21 = GB 2050-163
 Antiperspirant stick compsn. contg. astringent soln. - 34604C/20
 DOWO 07.06.79 DOW CORNING CORP A96 D21 = NL 7907-236
 Anti-perspirant emulsion compsn. - 34603C/20
 DOWO 07.06.79 DOW CORNING CORP A96 D21 = NL 7907-374
 Antiperspirant stick compsn. contg. astringent soln. - 34604C/20
 DYNL 18.11.76 DYNAPOL A97 D13 E24 = IL --53-361
 Increasing solubility of polymeric dyes contg. amino gps. - 23389A/13
 DYNL 17.12.76 DYNAPOL A97 B07 D13 E22 (A96 D21) = IL --53-590
 Red anthraquinone dyes - 30266A/17

EBAI 25.02.74 EBARA INFILCO KK D15 = J5 0115-680
 Desalting device for liq. contg. suspended solids etc. - 01187D/02
 *EBAI 25.02.74 EBARA INFILCO KK D15 *J8 0048-847
 Desalting device for liq. contg. suspended solids etc. - 01187D/02
 EBAI 29.08.74 EBARA INFILCO KK D15 = J8 0048-871
 Phosphate removal from waste liqs. - 29218X/16
 *EDMO/ 28.09.79 EDMONDSON EL D15 *US 4240-906
 Compsns. for clarifying liq. media esp. aquaria - 01766D/02
 *EDWA/ 09.02.78 EDWARDS R A96 B04 D21 (A25) *US 4239-781
 Topical application of poly:alkylene glycol - 01574D/02
 ELEX 26.01.76 ELECTROLUX AB D22 = US 4239-730
 Autoclave sterilization system - 54396Y/31
 ELIL 04.02.76 ELI LILLY & CO B04 C03 D16 (D13) = CA 1090-728
 Antibiotic A-7413 and its components and derivs. - 54099Y/31
 ELIL 08.06.79 ELI LILLY & CO B02 C02 D16 = GB 2050-385
 Factor H of antifungal antibiotic A-30912 and its homologues - 90141C/51
 ELIL 08.06.79 ELI LILLY & CO B02 C02 D16 = PT --71-349
 Antibiotic A-42355 obtd. by cultivation of aspergillus nidulans - 90140C/51
 ELIL 08.06.79 ELI LILLY & CO B02 C02 D16 = PT --71-350
 Factor H of antifungal antibiotic A-30912 and its homologues - 90141C/51

*ELRO 10.08.79 ELKEM-SPIGERVERKET D12 *BE -884-704
 Butchers powered tool for cleaving meat carcass - 00783D/02
 ENTR- 16.03.79 ENTREMONT SA D13 = FR 2451-158
 Cheese roll cleaning device - 68066C/39
 *EPID= 30.03.78 EPIDEMIOLOGY MICROBIOL D12 *SU -733-603
 Removal of blood from slaughtered animals - 01318D/02
 *ESSO 14.04.78 EXXON RES & ENG CO D16 E17 *US 4241-184
 Methyl ketone(s) prepns. from 3-6C sec. alcohol(s) - 01901D/02
 ETHI 08.12.78 ETHICON INC A96 D22 F01 (A23 A25) = PT --70-564
 Surgical suture material - 45926C/26
 *ETHY 26.02.79 ETHYL CORP D23 E17 *US 4240-985
 Prepns. of alkyl-substd.-aldehyde(s) - 01804D/02

FANT/ 06.12.76 FANTA G F A14 B04 D15 (D16) = IL --53-538
 Saponified graft copolymers used for aq. liq. adsorbents - 26985A/15
 FARB 09.09.76 BAYER AG D15 = CA 1090-538
 Treating waste water contg. organic matter by oxidn. - 19659A/11
 FARB 23.12.76 BAYER AG B04 C03 D16 = AT 7709-183
 Glucoside hydrolase inhibitors prodn. from bacteria - 45809A/26
 FARB 11.04.78 BAYER AG B04 D16 J04 S03 (B05 S05) = US 4239-902
 N-Carboxy:acyl aminoacid ester derivs. - 75673B/42
 *FARE= 25.10.77 FAR E DALTEKHRYBPRO D12 *SU -733-607
 Fish orienting mechanism - 01322D/02
 FARH 07.10.76 HOECHST AG D25 E11 = AT 7707-104
 Rinsing product for washing machines - 26934A/15
 FARH 23.10.76 HOECHST AG D21 E33 = CA 1090-531
 Stabilisation of di-calcium phosphate di-hydrate - 30240A/17
 FARH 14.04.78 HOECHST AG D25 E16 = US 4240-980
 Colourless tetra:acetyl-ethylene di:amine prepns. - 79391B/44
 FARH 19.06.78 HOECHST AG C02 D22 E13 F09 = US 4239-525
 3-(1,2,4-Triazolyl)-cinnamic and crotonic acid derivs. - 01804C/02
 FARH 24.04.79 HOECHST AG B02 D16 (B04) = J5 5143-994
 Cephalosporin derivs. with chromophore substit. at 3-position - 79272C/45
 FARM- 27.03.79 FARMATIS SPA D22 E14 #US 4239-920
 Antibacterial 6-iso-bornyl-3,4-xylenol prepns. - 84723B/47
 *FATS= 13.09.77 FATS RES INST D13 *SU -733-722
 Soya bean sepn. from impurities - 01347D/02
 FEDE- 07.05.79 FEDERAL PAPER BOARD D11 = DK 8001-995
 Pastry box container - 84771C/48
 FEDE- 07.05.79 FEDERAL PAPER BOARD D11 = SE 8003-379
 Pastry box container - 84771C/48
 FILT 10.02.78 FILTERS INT INC A91 D15 #CA 1090-925
 Water purifcn., esp. of sewage - 36436A/20
 *FINE- 05.03.79 FINETEX INC D25 E16 (D21) *US 4239-631
 Cationic surfactant compsns. compatible with anionic surfactants - 01511D/02
 FIRM 02.08.74 FIRMENICH SA B07 C03 D23 E13 (D13) = J8 0048-778
 Synthetic organoleptic oxathi(ol)anes - 13411X/08
 FISC/ 23.10.78 FISCHER K O P D17 H03 J01 (H06) = US 4240-800
 Absorbents for oil comprising cellulosic fibres - 40962B/22
 FISK- 03.05.79 FISKERITEKNOLOGISK D12 = SE 8003-070
 Removal of fat, intestines etc. from fish - 84727C/48
 *FIVE 13.03.79 FIVES-CAIL BABCOCK D17 J01 *FR 2451-225
 Continuous centrifugation plant - 00844D/02
 FLAN/ 18.07.77 FLANAGAN J J A97 D13 E16 (A25 E14) #CA 1090-671
 Hard surface cleaning detergent concentrate - 03972A/02
 *FLUI- 30.11.77 FLUID POWER RES INC D15 E36 *US 4239-621
 Water treatment to remove hardness and sulphur cpds. - 01505D/02
 FMCC 21.12.77 FMC CORP D15 #CA 1090-926
 Eliminating cyanurate cpds. from waste water - 56782A/32
 *FOLE/ 20.06.79 FOLEY WM A96 D22 (A14) *WP 8002-840
 Contact lens polymer contg. chemically bonded asepticising agent - 02004D/02
 *FOOD= 15.12.77 FOOD IND CORRESP D13 (D11) *SU -733-600
 Charger for confectionery and bread baking ovens - 01317D/02
 *FOSS- 08.04.77 FOSS ELEC A/S D13 J04 S03 X25 *US 4239-394
 Liq. analyser for determining fat content of milk - 01426D/02
 *FOUR/ 13.03.79 FOURCINE A D22 *FR 2451-159
 Absorbent granules used as litter for domestic animals - 00833D/02
 FROM 05.12.75 FROMAGERIES BEL SA D13 = US 4239-784
 Textured milk protein prod. - 39849Y/23
 *FUJI- 27.04.79 FUJINAGA SEIYAKU KK D21 *J5 5143-907
 Skin cosmetic contg. mineral, animal or vegetable tar - 01009D/02

*GALI/ 31.01.79 GALIN M A A96 B04 D22 *US 4240-163
 Intra/ocular lens coated with medicament - 01660D/02
 *GASC 12.12.75 BRITISH GAS CORP D15 J04 S03 *GB 1582-228
 Appls. for continuous colorimetric analysis - 00863D/02
 GBFE- 08.04.74 GB FERMENTATION IND D13 (D16) = AT 7707-157
 Lipolytic enzyme system from Mucor miehei - 58739W/36
 GDAN 22.04.76 GDANSKA POLITECH B05 C03 D16 = GB 1582-378
 (N)-Glucosyl derivs. of polyene macrolide antibiotics - 59473Y/34

O 26.10.79 GENERAL FOODS CORP D13 *US 4241-092
 Classified candy confection - 01854D/02
 O= 03.04.78 GEOR FOOD IND RES D13 J02 *SU -733-707
 od or perfume rotary mixer - 01345D/02
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = BR 8002-824
 Methane and fertiliser sludge produced from animal farm effluent - 7764C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = BR 8002-841
 Methane and agricultural fertiliser sludge prodn. - 67763C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = DK 8001-707
 Methane and agricultural fertiliser sludge prodn. - 67763C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = DK 8001-708
 Methane and fertiliser sludge produced from animal farm effluent - 7764C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = GB 2050-339
 Methane and fertiliser sludge produced from animal farm effluent - 7764C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = SE 8003-430
 Methane and agricultural fertiliser sludge prodn. - 67763C/39
 A- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = SE 8003-431
 Methane and fertiliser sludge produced from animal farm effluent - 7764C/39
 Z/ 09.11.77 GLEZIN VI D15 *SU -733-704
 uspensions and effluents clarifier - 01342D/02
 R/ 14.03.79 GLORIEUX G D22 S05 *FR 2451-195
 Immersed electrodes steriliser for contact lenses etc. - 00839D/02
 OR 12.12.77 GOODRICH B F CO D15 = CA 1090-722
 ining for a concrete conduit carrying sea water - 45912B/25
 DL= 31.01.78 GEOR POLY D13 *SU -733-615
 rocessing green leaf tea - 01329D/02
 AI 30.04.79 GRAIN PROCESSING CORP D17 *US 4241-183
 liquefaction of high solids starch pastes - 01900D/02
 AI= 23.12.77 GRAIN PRODS RES D11 *SU -733-599
 laboratory dough mixer - 01316D/02
 AI= 30.12.77 GRAIN PRODS RES D13 *SU -733-723
 pearl barley production - 01348D/02
 EA- 23.02.79 GREAT WESTERN SUGAR D16 *US 4241-185
 Stabilisation of mycelial alpha-galactosidase - 01902D/02
 OF/ 08.06.79 GROFF R F D22 *WP 8002-644
 Pasteurising respiratory therapeutic equipment - 01944D/02
 OG 23.05.78 GYOGYSZERKUTATO INT B04 D16 = AT 7903-572
 Nebramycin antibiotic complex microbiological prodn. - 87983B/49
 GE- 17.04.70 HAGER & ELSASSER D15 J01 = J8 0048-863
 on exchange water treatment - 00311T/01
 GG/ 23.09.76 HAGGA R A96 D22 = GB 1582-310
 Rubber tape for lining plaster casts - 08372A/05
 WK 24.05.78 HAWKER SIDDELEY WAT D15 *GB 1582-520
 sewage and industrial waste waters aeration - 00883D/02
 NG/ 12.10.78 HENGSTENBERG E D13 = US 4238-997
 Horizontal rotary drum blanchering appts. for hot brining sauerkraut - 2937C/08
 IK 29.04.76 HENKEL KG AUF AKTIEN A97 D25 = AT 7703-014
 liquid scouring type cleaning compsn. - 77549Y/44
 IK 23.06.77 HENKEL KG AUF AKTIEN D21 E19 = AT 7804-550
 skin protection against longer wavelength UV - 01875B/02
 IK 23.06.77 HENKEL KG AUF AKTIEN D21 E13 = AT 7804-551
 skin protection against longer wavelength UV - 01874B/02
 IK 20.01.78 HENKEL KG AUF AKTIEN B03 C03 D13 (C02) = US 4239-
 animal feed mixt. for poultry, pigs, etc. - 56404B/31
 IK 05.05.79 HENKEL KG AUF AKTIEN D23 E13 = BR 8002-710
 -Alkyl-4,6-di-oxa-tri:cyclo-dodecene derivs. - 82775C/47
 IK 07.05.79 HENKEL KG AUF AKTIEN A97 D25 E19 F06 = BR 8002-781
 fabric-softening detergent powders - 86448C/49
 IK 07.05.79 HENKEL KG AUF AKTIEN A97 D25 E19 (A25) = BR 8002-
 textile detergent having softening activity - 82995C/47
 C 25.03.76 HERCULES INC A14 C03 D22 = CA 1090-553
 crosslinked (co)polyacrylamide absorbents - 61225Y/35
 C 06.06.79 HERCULES INC A11 D25 (A97) *NL 8003-241
 cellulose ether with long-chain hydrocarbon substit. - 01233D/02
 R/ 24.01.78 HERRING M T A D14 S02 = US 4238-998
 portioning compressible viscous material, e.g. dough in extruder - 3456B/32
 - 10.03.76 HILGERS UMWELT GMBH D15 = FR 2451-345
 heating badly polluted water by disinfection and flocculation - 5001Y/37
 06.02.78 HITACHI METAL KK D21 L03 M26 V02 (X12 X24) = US 4239-
 palladium contg. magnetic alloy - 60129B/33
 09.03.77 HITACHI CONSTRUCT MACH D15 = J5 3110-173
 device for filtering waste water - 00450D/01
 - 08.05.79 HORMEL G A & CO D12 #DK 7901-886
 animal carcass skinning machine - 84576C/48
 F 30.11.75 HOFFMANN-LA ROCHE LTD C03 D13 = CA 1090-648
 taminising animal feedstuffs - 40305Y/23

* HOLM/ 26.01.78 HOLMAN D G D22 *US 4239-492
 Prepn. of umbilical cord for implantation into human body - 01435D/02
 * HOLM/ 26.01.78 HOLMAN D G A96 D22 *US 4240-794
 Conforming human umbilical cord to predetermined configuration - 01717D/02
 IDEK 25.12.76 IDEMITSU IND KK C03 D22 E15 = J8 0049-098
 Sublimable compsn. for slow release of perfume, insecticide etc. - 61146A/34
 IDEK 25.12.76 IDEMITSU IND KK C03 D22 E15 = J8 0049-099
 Sublimable compsn. used as carrier for perfume or insecticide - 61147A/34
 * INFL 04.02.75 INT FLAVORS & FRAGR INC D18 E13 *US 4240-447
 Smoking tobacco compsns - 01689D/02
 INFL 12.04.76 INT FLAVORS & FRAGR INC D13 E13 (D18 D21) = GB 1582-459
 2-Alkyl-4-phenyl-di:hydro:pyran derivs. - 13743A/07
 * INFL 10.08.78 INT FLAVORS & FRAGR INC D23 E15 (D21 D25) *US 4241-228
 Alkyl-3-cyclopentenyl:alkenyl cyclopentanol and cyclohexanol cpds. - 01926D/02
 * INFL 13.09.79 INT FLAVORS & FRAGR INC D13 E13 *US 4241-097
 Flavouring foodstuffs with coumarin substitutes - 01859D/02
 * INFL 17.10.79 INT FLAVORS & FRAGR INC D13 E17 *US 4241-098
 Flavouring foodstuffs with hexenol oxidn. prod. - 01860D/02
 INSP 29.06.76 INST PASTEUR B04 C03 D16 = GB 1582-294
 Antischistosomal immunological agent - 75958Y/43
 INTE- 27.05.77 INTEROX CHEM LTD D15 E16 (E36) = US 4239-622
 Disinfecting water esp. domestic and drinking water - 86113A/48
 * INTM 21.05.79 INT MINERALS & CHEM CORP B02 C02 D13 *US 4241-061
 2-Oxazolidinyl-quinoxaline-1,4-di:oxide derivs. - 01840D/02
 INTM 30.05.79 INT MINERALS & CHEM CORP B02 C02 D13 = GB 2050-374
 Animal growth promoter zearalin derivs. - 88682C/50
 INTM 30.05.79 INT MINERALS & CHEM CORP B02 C02 D13 = US 4239-772
 Animal growth promoter zearalin derivs. - 88682C/50
 * INTT 17.05.76 INT TELEPH & TELEG CORP D11 *US 4239-783
 Redn. of mixing time of yeast leavened bread doughs - 01576D/02
 ISHI- 13.03.79 ISHIGAKI SHOKUHIN D13 = FR 2451-166
 Stable compsn. contg. dried coffee, cream and sweetener - 70055C/40
 * ISRA 15.07.77 ISRAEL MIN AGRICULT D22 T06 X25 *IL -52-536
 Vapour generator, e.g. for vaporising pesticides - D/02
 ITAF 08.05.79 ITALFARMACO B04 D16 = SE 8003-488
 Reactor for enzyme reactions - 65987C/38
 * IVAN= 29.05.79 IVANOV CHEM TECHN A14 D15 *WP 8002-688
 Prodn. of acrylic polymers by radical polymerisation - 01960D/02
 JACK/ 04.05.77 JACKSON J F D15 J01 = US 4240-578
 Solid bowl centrifuge with differential speed screw - 84401A/47
 JOHN- 18.06.79 JOHNSTON LABS INC D16 J04 S03 (S05) = WP 8002-849
 Electrical detection of bacteria - 77096C/44
 JOHS 29.11.78 JOHNSON S C & SONS INC D25 E12 = US 4240-919
 Stable liq. abrasive scouring compsn. - 41937C/24
 JONS/ 31.10.77 JONSSON U R S B04 D16 S03 S05 = GB 2050-386
 Prodn. of a stable prepn. having immunoglobulin binding properties - 40601B/21
 * JULI/ 16.03.79 JULIEN M D11 *FR 2451-165
 Bakery proving chamber with bucket conveyor for dough lumps - 00835D/02
 JUTI/ 07.06.77 JUTILA P D15 J04 T06 = US 4239-493
 Control of pH in continuous flow using hydrogen ion evaluation - 00282B/01
 KALT- 24.04.79 KALTENBACH & VOIGT D22 = J5 5143-906
 Sprayable medical or dental instrument sterilising mixt. - 79057C/45
 KAOS 14.05.74 KAO SOAP KK D15 E36 = J8 0048-872
 Hydrogen sulphide removal from waste water - 13174A/07
 * KAOS 27.04.79 KAO SOAP KK A97 D25 E12 (A25 E16) *J5 5144-099
 Detergent compsn. contg. alkyl:ether fatty acid and ammonium salts - 01107D/02
 KART- 31.03.76 KARTRIDGE PAK CO D12 = GB 1582-542
 Meat recovery from bones using a pressurising auger - 60886Y/34
 KART- 31.03.76 KARTRIDGE PAK CO D12 = GB 1582-543
 Meat recovery from bones using a pressurising auger - 60886Y/34
 * KDFD= 31.08.77 KRASD FOOD IND RES D18 *SU -733-629
 Tobacco-leaves single stage pressing equipment - 01335D/02
 * KDPO= 17.12.76 KRASD POLY D18 *SU -733-630
 Guillotine type pressed tobacco leaves cutter - 01336D/02
 * KEAR/ 30.01.77 KEARNEY J A A96 D22 *GB 1582-450
 One piece polypropylene finger joint prosthesis - 00879D/02
 KIBU- 21.07.75 KIBUN CO D13 = US 4241-100
 Soybean milk prodn. without beany flavour or bitterness - 54986B/30
 KIKK 30.03.73 KIKKOMAN CORP B02 D16 = J8 0048-793
 Synthesis of cyclic adenlic acid - 26543W/16
 KIKK 18.06.73 KIKKOMAN CORP B02 D16 = J8 0048-794
 Cyclic uridylic acid - 45146W/27

KIOR

*KIOR= 01.03.78 KIEV ORGPISHCHEPROM D11 *SU-733-597

Bread-baking oven with uniform heating of movable mesh bottom - 01314D/02

*KISE/ 29.05.79 KISELNIKOV VN A14D15 *WP 8002-688

Prodn. of acrylic polymers by radical polymerisation - 01960D/02

*KOLL/ 30.06.79 KOLLROSS G D12 V04 X25 *PT -71-466

Terminal mfr. from pressed worm-shaped sleeve material - D/02

KONIN 11.05.79 GIST BROCADES NV B04 D16 = DK 8001-912

Plasmid conferring resistance to Streptomycin and Neomycin - 90824C 51

KOPP/ 23.05.79 KOPPENS MACH BV D13 = GB 2050-237

Moulding croquettes - 88609C/50

KOWA/ 15.05.79 KOWALSKY H D13 = GB 2050-142

Natural laxative products - 69827C/40

*KRFT 15.08.79 KRAFT INC D13 *BE -884-818

Cream based soft textured cheese prod. - 00788D/02

KRUN 25.11.76 KRAFTWERK UNION AG D15 J03 K05 L02 = IL -53-317

Sea water desalination plant - 40600A/23

*KULA/ 05.04.77 KULAKOV V K D14 *SU -733-627

Root vegetables washer - 01333D/02

KULZ 02.06.77 KULZER GMBH A96 D22 L02 (A14) = US 4239-113

Material for prepn. of bone cement - 72816A/41

KURE 16.01.74 KUREHA CHEM IND KK D12 E19 = J5 0100-258

Processed fish or animal meat prepn. - 01182D/02

*KURE 16.01.74 KUREHA CHEM IND KK D12 E19 *J8 0048-783

Processed fish or animal meat prepn. - 01182D/02

KURS 26.04.79 KURARAY KK A97 D22 G04 (A14 A17 A96) = J5 5144-044

Aq. gel used as perfume release- or cold retention material - 79157C/45

KYOW 03.03.78 KYOWA HAKKO KOGYO B03 D16 E13 (D22) = US 4241-182

Antibacterial fortimicin KG derivs. - 66600B/37

*KYUK 04.12.78 KYUSHU SEKISUI IND D15 *J5 5075-710

Industrial waste waters filter - 00953D/02

LARS/ 08.05.79 LARSSON V K A96 D21 = SE 7904-028

Skin-protective coating formation system - 84765C/48

LEGR/ 14.03.79 LEGRAIN M D14 S02 T06 = FR 2451-570

Mixing plant for liq. feed for teat fed mammals - 72054C/41

*LEMO/ 12.06.78 LEMOINE K D D15 J01 *US 4239-601

Distillation appts. with volatile pollutant removal - 01494D/02

LEPE 05.03.75 GRUPPO LEPETIT SPA B04 D16 = US 4239-751

Teichomycins A, and A2 prepns. from Actinoplanes teichomyceticus - 72165X/39

*LEZH 20.11.78 LENINGRAD ZHDANOV UNIV C03 D13 E17 F01 *SU -733-592

Silkworm productivity enhancement with chemical stimulants - 01313D/02

*LIFE- 21.12.78 LIFE SAVERS INC A97 D13 *US 4241-090

Non-adhesive, high cud volume chewing gums - 01852D/02

*LIFE- 21.12.78 LIFE SAVERS INC A97 D13 *US 4241-091

Non-adhesive, high cud vol. chewing gum - 01853D/02

LIOY 17.02.78 LION FAT & OIL KK A97 D25 E19 (A25 E33) = US 4239-662

Liq. cleaning compsn. e.g. for heavy duty cleaning - 64914B/36

*MAGE- 06.06.79 MAGEVO BV D14 J01 *NL 7904-454

Washing plant for fumes from foodstuff smoking - 01228D/02

*MAGN- 24.03.77 MAGNA CORP D25 E11 H01 M14 *US 4239-695

Amino phosphonic acid prodn. from nitrile cpds. - 01539D/02

MANN- 11.05.79 MANN & SCHRODER KG B05 D12 E16 (E36) = GB 2050-410

Effervescent bath salts - 65994C/38

*MARI/ 13.06.79 MARIA G R A96 D21 *BR 7903-845

Assembly for acrylisation - D/02

MASO/ 04.08.77 MASON S I D22 J01 #CA 1090-738

Device for dispensing volatile material e.g. insecticide or deodorant - 16139B/09

MATJ 16.06.76 MATSUSHITA REIKI KK D15 = J5 2154-578

Device for carbonated drinking water prodn. - 00452D/01

*MATT- 28.06.79 MATTHEWS B LTD D12 *PT -71-467

Mfg. foodstuffs with solid interior and cover - D/02

*MAUR- 04.06.79 MAURI BROS & THOMSO D16 *WP 8002-695

Edible dyes with brown to black colour - 01964D/02

MAYR/ 01.04.77 MAYRA B04 C03 D16 = IL -54-370

Compsn. for treatment of Herpes zoster - 55129A/31

*MAZN 27.04.79 MARUZEN OIL KK B05 D13 E17 *J5 5143-920

Liq. branched chain satd. higher aliphatic poly:ol - 01015D/02

*MEAT= 06.02.78 MEAT IND RES INST D12 *SU -733-604

Conveying, grouping and loading equipment for sausage-like items - 01319D/02

MEDL- 04.05.79 MEDLINE AB A96 D22 = SE 7903-886

Device for closing body passages, esp. for use as contraceptive - 90094C/50

MEIJ 05.06.74 MEIJI CONFECTIONARY B02 D16 = J8 0048-800

Antibiotic cephamycin prodn. - 22377A/12

METG 05.05.76 METALLGESELLSCHAFT AG D15 J01 = US 4241-227

Reducing BOD of gas condensates contg. phenols and tar bases - 84875Y/48

METG 03.10.77 METALLGESELLSCHAFT AG D15 E35 H09 (E14) = US 4240-508

Processing waste waters from coal degasification or gasification - 28060B/15

MEYE- 14.05.79 MASCH MEYER AG A88 D15 J01 K07 = GB 2050-18

Radioactive waste filtration process - 86565C/49

MILE 22.12.75 MILES LABORATORIES INC D13 E16 = CA 1090-651

Glycinamide salt food seasoning compsns. - 29162Y/17

MILE 12.03.79 MILES LABORATORIES INC D13 = FR 2451-167

Prodn. of casein with low cholesterol content - 43324C/25

*MINN 02 05 79 MINNESOTA MINING CO B04 D16 *US 4241-181

Broth for detecting deoxyribonuclease positive microorganis 01899D/02

MITO 29.03.77 MITSUBISHI HEAVY IND KK D15 = J5 3119-473

Filter press for treating waste water - 00451D/01

MITQ 21.00.74 MITSUBISHI ELECTRIC CORP D15 = J5 0091-950

Appts. for agglomerating insol. material in waste water - 00447D/01

MITR 17.05.73 MITSUBISHI RAYON KK A88 D15 J01 = J8 0048-842

Semipermeable membranes of acrylonitrile polymer - 46736W/28

MITR 13.04.78 MITSUBISHI RAYON KK D22 F04 = US 4241-067

Water-absorbent fabric product - 79296B/44

*MITR/ 28.12.77 MITROV O L D14 *SU -733-625

Conserve cans unloader and orienter - 01331D/02

MOBI 16.04.79 MOBIL OIL CORP D15 H05 J01 M11 = US 4239-620

Complex metal cyanide removal from industrial effluent - 81145C/46

*MOGI= 29.12.77 MOGIL TECHN INST D14 *SU -733-613

Liq. food products steriliser - 01327D/02

*MOLI- 15.03.79 MOLINIER SA D22 F04 *FR 2451-412

Extensible knitted bandage - 00854D/02

*MOMD 14.11.77 MOSCOW MEAT DAIRY INST D12 *SU -733-609

Sausage-like articles heat-treating equipment - 01324D/02

*MOME= 30.03.78 MOSC MEAT IND MFG D12 *SU -733-603

Removal of blood from slaughtered animals - 01318D/02

MRSC 10.10.77 MARS LTD D13 (D12) = AT 7807-274

Reducing odour of fish-based food prods. - 27884B/15

*MURM= 06.07.77 MURMANSK GIPRORYBFL D12 *SU -733-606

Fishing boats fish catch receiver - 01321D/02

*MURM= 19.12.77 MURMANSK GIPRORYBFL D12 *SU -733-608

Fish-roe extractor using centrifugal force - 01323D/02

*MURM= 05.01.78 MURMANSK GIPRORYBFL D14 *SU -733-610

Frozen food blocks loader for glazing machine - 01325D/02

*MURM= 20.02.78 MURMANSK GIPRORYBFL D12 *SU -733-611

Fish batcher for small fish blocks freezer - 01326D/02

*NAKA- 04.12.78 NAKANO VINEGAR KK D14 *US 4241-095

Preventing spoilage of food, esp. soy sauce - 01857D/02

NATT 12.03.79 NAT STARCH & CHEM CORP D13 = FR 2451-223

Pulverising fat-contg. foodstuff to free-flowing powder - 67991C/39

*NENG- 18.07.79 NORTHERN ENG IND LT D15 J01 *GB 2050-192

Deionisation of boiler condensate water - 00898D/02

NICA 28.10.78 NIPPON CARBIDE KOGY KK A97 D16 E13 (D13) = BR 7903-860

Cultivation of algae - 34956C/20

NIJH- 10.05.79 MACH FAB NIJHUIS G D12 = DK 8002-028

Conveyor in abattoir stunning machine - 85614C/48

NIJH- 10.05.79 MACH FAB NIJHUIS G D12 X25 = DK 8002-029

Electrical stunning machine for beasts, to be slaughtered - 85616C/48

NIJH- 10.05.79 MACH FAB NIJHUIS G D12 X25 = DK 8002-030

Electrical stunning of beasts esp. pigs for slaughter - 85617C/48

NIJH- 10.05.79 MACH FAB NIJHUIS G D12 X25 = DK 8002-031

Automatic stunning of animals for slaughter - 85615C/48

NIKE- 28.02.79 NIKEX NEHEZIPARI KU D15 #US 4240-911

Filtration and ion exchanging column - 61816B/34

NIPB 24.10.73 NIPPON BEET SUGAR KK D17 E33 J01 L02 (E36) = J8 0049-011

Gypsum from lime flue gas - 76406X/41

NIPK 25.05.73 NIPPON KAYAKU KK D23 = J5 0007-803

Inhibiting smell of oil or fat during storage - 00421D/01

NIPK 06.11.73 NIPPON KAYAKU KK D12 E13 (E17) = J5 0071-863

Colouring of meat - 01181D/02

*NIPK 06.11.73 NIPPON KAYAKU KK D12 E13 (E17) *J8 0048-782

Colouring of meat - 01181D/02

NIPQ 04.06.79 DAI NIPPON INSATSU D13 = GB 2050-143

Semi-processed, room temp. packed storable chip prepn. - 00213D/01

NIRA 30.05.79 UNITIKA KK D15 = GB 2050-333

Absorbent for removing heavy metals from soln. - 71632C/41

NISI 18.05.76 NISSHIN STEEL KK D15 M14 = J8 0048-593

Chromium plating liq. regeneration - 02886A/02

NISS 19.09.72 NISSHIN FLOUR MILL KK B04 C03 D16 = J4 9047-163

Preventing infectious atrophic rhinitis of young pig - 00418D/01

NITL 18.11.77 NITTO ELECTRIC IND KK A88 D15 J01 (A26) = US 4240-914

Self-supporting permselective polyimide membrane - 40894B/22

*NONB= 07.10.77 NON-BLACK AREA HORT D14 *SU -733-628

Fruit sorter working by size - 01334D/02

*NOTT/ 10.04.79 NOTTAGE H C A96 D21 *GB 2050-160

Protective skin cream compsns. - 00892D/02

NOUN 28.02.79 NORTHWESTERN UNIV D16 S03 = J5 5143-440

Sepn. of cells, bacteria or viruses from mixed populations - 71999C/41

22.10.76 OAKES ET LTD A31 D14 J02 *GB 1582-529
 ixer for mixing food esp. marshmallow or foam plastic - 00886D/02
 05.10.77 ODESS SUPPLY MACH D13 *SU -733-623
 extraction from apples - 01330D/02
 19.07.76 OKAZAKI KOGYO KK D15 = J5 3012-151
 ddy water treating appts. - 00448D/01
 08.11.76 ONTARIO RES FOUND D15 = IL --53-293
 effluent purification - 38768A/22
 21.04.76 L'OREAL SA D21 E24 = J8 0049-088
 Nitro-(4)-hydroxy-ethylamino phenol and ring alkyl derivs. - 74Y/43
 15.03.77 L'OREAL SA A96 D21 = US 4240-450
 compsn. for treating hair, nails or skin - 67034A/38
 04.05.79 L'OREAL SA A96 D21 (A14) = GB 2050-393
 difying cosmetic oils by grafting with specified hydrophilic monomer - 39C/47
 15.05.79 L'OREAL SA D21 = GB 2050-165
 smetic compsn. for the hair, pref. a shampoo - 84341C/48
 15.05.79 L'OREAL SA A96 D21 = GB 2050-166
 smetic compsn. for washing and combing out hair - 84342C/48
 15.05.79 L'OREAL SA D21 = GB 2050-411
 smetic compsn. for the hair, pref. a shampoo - 84341C/48
 18.06.79 L'OREAL SA D21 E24 *BE -883-864
 air colouring compsn. contg. 2,4-di:amino butoxy benzene - 00781D/02
 4-30.10.73 ORONZIO DE NORA IMP D15 J03 X25 = SU -733-521
 artical electrolytic cell battery for water sterilisation - 34542W/21
 / 03.03.80 ORTNER J A D12 *AT 8001-149
 at salting device - D/02
 0-15.06.72 OSMONICS INC D15 J01 T06 = J4 9052-185
 ute concentration - 55699U/38
 0-15.06.72 OSMONICS INC D15 J01 T06 = J8 0048-846
 ute concentration - 55699U/38
 27.02.78 OWENS-ILLINOIS INC D16 J04 L01 *US 4241-180
 ferential detection of surfactants on surfaces - 01898D/02

 / 01.03.79 PACE I A85 D15 J03 X25 = FR 2451-596
 tronic water descaler - 46469C/27
 19.04.79 PAPER MFRS CO A92 D22 = J5 5143-269
 ckage for sterilised medical prod. - 30879C/17
 / 04.06.79 PARKER B J D16 *WP 8002-695
 ble dyes with brown to black colour - 01964D/02
 19.08.76 PEABODY INT CORP D15 = CA 1090-713
 cast beams for supporting filter bed - 60345A/33
 21.11.77 PENICILLIN ASSAYS B04 D16 K08 S03 (S05 X25) *US 4239-

 bid and sensitive detection of antibiotics in liquids - 01564D/02
 21.11.77 PENICILLIN ASSAYS INC B04 D13 J04 S03 (S05) = US 4239-

 ection of antibiotics in liquid samples e.g. milk, body fluid - 110B/13
 18.06.79 PQ CORP D15 *BR 8002-821
 lution of metallic ion concn. in aq. effluents - D/02
 02.06.79 PIELKENROOD-VINITEX NV D15 *GB 2050-185
 ter etc. purification appts. - 00896D/02
 1.10.79 PILLSBURY CO D13 *US 4241-094
 thod of dehydrating potatoes - 01856D/02
 26.04.79 POLA KASEI KOGYO KK D21 E15 *J5 5143-909
 alid. cosmetic cpd. is stable - 01011D/02
 28.10.77 POLYPUR FORSALJNING D15 = US 4240-164
 ator for biological toilet - 39310B/21
 = 18.01.78 POLT MEAT MACH WKS D12 *SU -733-605
 itstage suspension frame for poultry carcasses - 01320D/02
 05.06.79 PORTA A D15 J01 X25 *WP 8002-650
 en. of aq. sludge, e.g. from waste water treatment - 01946D/02
 27.09.74 PROCTER & GAMBLE CO D25 E37 = CA 1090-672
 phosphate dry granular washing agents - 29463X/16
 09.02.76 PROCTER & GAMBLE CO D25 E16 (E13) = CA 1090-506
 culate fabric conditioners for washing powders - 57532Y/33
 20.03.76 PROCTER & GAMBLE CO A97 D25 E16 F06 = GB 1582-290
 set impregnated with long chain amine formate - 14038A/08
 22.08.76 PROCTER & GAMBLE CO D25 E19 F06 = GB 1582-299
 ble bleach particles - 15920A/09
 07.01.77 PROCTER & GAMBLE CO D22 F09 = CA 1090-515
 cleanning tissue, esp. toilet paper - 49719A/28
 23.12.77 PROCTER & GAMBLE CO A97 D25 E16 (A25 E14) *US 4239-

 ndry detergent compsns. - 01520D/02
 28.02.78 PROCTER & GAMBLE CO D25 E19 = US 4240-920
 ergent bleach compsn. effective under dark conditions - 64996B/36
 29.11.78 PROCTER & GAMBLE CO A96 D22 = US 4239-043
 er absorbing foamed material for tampons etc. - 88809C/50
 15.12.78 PROCTER & GAMBLE CO A97 D25 E19 (A26) = US 4239-

 phosphate or phosphate-free detergent - 46664C/27
 19.06.79 PROCTER & GAMBLE CO A92 D25 *US 4239-639
 sensitive detergent packaged in heat sealed pouch - 01514D/02

PROJ- 20.07.76 PROJECTIERUNG CHEM D17 E13 F09 = GB 1582-480
 Glucose recovery from cellulosic plants - 08656A/05
 *PROS- 09.01.79 PROSENBAUER & CO D12 *AT 7900-156
 Injection device for meat pickling brine - D/02

 *QUAK 31.10.75 QUAKER OATS CO D14 *US 4240-779
 Extruded food cutting rotating knife - 01713D/02

 RALS 01.06.76 RALSTON PURINA CO D13 = CA 1090-649
 Proteinaceous food product prodn. of good toughness - 17550A/09
 RALS 29.12.76 RALSTON PURINA CO D13 = CA 1090-647
 Reduction of combustion prod. residues in dried prods. - 19591A/10
 *RAPI- 31.05.79 RAPIDEX LTD B04 D16 K08 S03 *WP 8002-747
 Ultra-sensitive enzymatic radioimmunoassay method - 01983D/02
 *RAYT 24.01.79 RAYTHEON CO D11 *US 4240-397
 Gas-fuelled oven with vent - 01672D/02
 *REAP- 25.05.79 LAB DE RECH API B04 D16 E19 (D13) *GB 2050-418
 Identifying Salmonella and Serratia species - 00926D/02
 RECA 25.04.77 RECHERCHES & IND THERAPE B04 C03 D16 = IL --54-390
 Fowl pest vaccine - 77499Y/44
 *RECT/ 21.09.79 RECTOR C W D22 *US 4240-186
 Expression former for corpse - 01662D/02
 *RESE 18.03.77 RESEARCH CORP A96 B04 D22 *US 4239-664
 Antithrombogenic PVP-heparin polymer - 01522D/02
 RHON 30.12.76 RHONE-POULENC INDUSTRIES D25 E36 = AT 7709-446
 Silico-aluminate(s) esp. for use in washing powders - 47754A/27
 RHON 02.11.77 RHONE-POULENC INDUSTRIES A97 D25 (A23 A25) = US 4240-918
 Anti-soil and anti-redeposition detergent compsn. - 33374B/18
 RIST/ 12.03.79 RISTO S D15 J01 #FR 2451-210
 Evaporation of liquids in multi-effect system - 29959B/16
 RITP 12.02.79 SYBRON CORP A96 D21 E33 = US 4240-832
 Compsn. for filling teeth - 60771C/35
 ROHM 13.03.78 ROHM & HAAS CO A18 D22 J04 M25 (D17 S03) = US 4240-909
 Crosslinked boron-contg. resin - 44395A/25
 ROHM 12.07.78 ROHM & HAAS CO B03 C01 D22 E12 = US 4241-214
 Metal complexes of 3-isothiazolones - 76318T/48
 ROQF 16.03.79 ROQUETTE FRERES SA B05 D13 E17 = FR 2451-357
 Sorbitol compressed products e.g. tablets - 70061C/40
 ROSS/ 16.03.79 ROSSI J C03 D13 = FR 2451-168
 Neutralisation of alkaline lignocellulose-contg. material - 70028C/40
 *ROTH/ 15.11.78 ROTH E N D12 *US 4239-785
 Jerky strips mfr. - 01577D/02
 *RUGG/ 28.06.79 RUGGERI A D15 *PT --71-365
 Sedimentation tank - D/02

 SALA/ 08.06.79 SALA F D13 T05 = NL 8003-314
 Indicator of transitory defrosting of frozen food etc. - 73516C/42
 SANU- 30.09.74 SANUKI ENGYO KK D13 = J8 0049-006
 Table salt with low potassium content - 37014X/20
 SANY 11.05.79 SANKYO KK B03 D16 = DK 8000-731
 Monacoline K prepd. by cultivation of Monascus strains - 69578C/40
 SCGR 15.02.78 SOC CHIM GRANDE PAROISSE A25 D22 E16 = US 4241-226
 Prepn. of 2-nitro-2-methyl-propanol from 2-nitro propane - 68495B/38
 SCHD 16.07.76 SCHERING AG B01 D16 = AT 7705-046
 Androstan-(17)-one derivs. prodn. by fermentation - 06352A/04
 SCHM/ 18.01.77 SCHMIDT M D11 = AT 7800-156
 Waffle filled with honey and corresp. honey depositor - 35000A/20
 SCHN/ 22.06.78 SCHNELL K D14 = US 4240-591
 Rotary food mincer with trap for metal foreign bodies - 77233B/43
 SCMZ 05.06.79 SCM CORP D13 = WP 8002-636
 Imitation cocoa powder prepd. from fine flour mixt. - 84392C/48
 *SCMZ 25.06.79 SCM CORP D13 *US 4239-786
 Low fat coffee whitener - 01578D/02
 *SCMZ 04.09.79 SCM CORP D23 E13 (E15) *US 4240-969
 Inexpensive prepn. of methofuran - 01798D/02
 *SEAF= 26.12.77 SEA FISH OCEANOL RES D15 J04 S03 *SU -732-725
 Sea-water sampler - 01307D/02
 SEIK- 00.00.80 ZH SEIKEN-KAI B04 D16 = J5 5143-916
 Deodorant Lactobacillus strain cultivation - 88537Y/50
 *SHAW- 25.07.77 SHAW R A INC D13 *US 4241-096
 Coring cauliflower heads - 01858D/02
 SHEL 01.11.76 SHELL OIL CO D23 E15 = US 4239-923
 Cyclooctene derivs. contg. opt. esterified tert. hydroxyl gp. - 33794A/19
 SHIO 06.08.74 SHIONOGI KK B05 C03 D13 E14 (B02 B03) = US 4240-957
 Aroyl-aryl-substd. dipeptides - 00113X/01
 SHOW 21.06.73 SHOWA DENKO KK D15 J01 = J8 0048-873
 Halide ions removal from waste water - 11766X/07
 *SING/ 31.08.78 SINGLETON R R A96 D22 *US 4240-436
 Vaginal-rectal treatment disposable cold pack - 01686D/02
 *SIYA 25.04.79 SANSEI SEIYAKU KK D21 E13 *J5 5143-908
 3-Hydroxy:chromone contg. whitening cosmetic - 01010D/02

SNOW

SNOW 17.02.73 SNOW BRAND MILK PRODUCTS A97 D13 = J4 9108-267
Freezable processed egg prod. prep. - 01180D/02

*SNOW 17.02.73 SNOW BRAND MILK PRODUCTS A97 D13 *J8 0048-775
Freezable processed egg prod. prep. - 01180D/02

*SOMM/ 05.06.79 SOMMER H D12 *WP 8002-635
Meat salting machine - 01940D/02

STAL 0/11.77 STALEY A E MFG CO D13 = CA 1090 653
Pasteurised vegetable seed fibre for use in foods - 05140C/03

STAM 27.06.77 STAMICARBON BV D15 = US 4240-904
Biological purification of waste water - 02342B/02

STAM 09.05.79 STAMICARBON BV A41 C04 D15 E16 = BR 8002-794
Purification of urea-contg. effluent water - 85611C/48

STAR/ 04.06.79 STARK V D15 = PT -71-346
Solar distn. appts. esp. for sea water - 09176C/05

STAU 16.11.70 STAUFFER CHEMICAL CO B05 C03 D22 E14 = J8 0049-043
22-dibromoacetophenone - 33844T/21

*STAU 13.12.76 STAUFFER CHEMICAL CO A97 D25 *US 4240-921
Alkaline detergent concentrates for bottle washing - 01771D/02

STAU 31.05.77 STAUFFER CHEMICAL CO D17 E13 = CA 1090-793
High purity lactose prodn. - 66818A/37

*STBR 29.05.79 STANDARD BRANDS INC D11 *US 4241-106
Tortillas which remain flexible on storage - 01866D/02

STER 18.02.75 STERLING DRUG INC B03 D16 = AT 7901-306
2,5-Dideoxy-5-(iodo and fluoro)-streptamines - 63309X/33

*STRA/ 19.11.79 STRAUBINGER P D14 *US 4239-175
Mould for freezing liquid foodstuff - 01412D/02

SUME 06.07.74 SUMITOMO ELEC IND KK D15 = J5 1005-663
Appts. for removing PPTES. from sedimentation tank - 01188D/02

*SUME 06.07.74 SUMITOMO ELEC IND KK D15 *J8 0048-850
Appts. for removing PPTES. from sedimentation tank - 01188D/02

SUMO 14.10.71 SUMITOMO CHEMICAL KK C02 D16 = J4 8044-415
Pesticide compsns - 24737U/18

SUMO 24.04.78 SUMITOMO CHEMICAL KK A96 B04 D16 #US 4239-854
Carriers for enzyme immobilisation - 80990B/45

*SUMS= 06.02.78 SUMSK MEAT COMBINE D12 *SU -733-604
Conveying, grouping and loading equipment for sausage-like items - 01319D/02

SUNW 12.03.74 SUN WAVE IND KK D15 = J5 0120-152
Water filter used for removing chlorine from tap water - 01195D/02

*SUNW 12.03.74 SUN WAVE IND KK D15 *J8 0048-875
Water filter used for removing chlorine from tap water - 01195D/02

SVYG 31.03.78 STATNI VU KOZ GOTTWALD D18 = US 4238-939
Thermal treatment of leather - 73808B/41

TAKA- 06.04.76 TAKARA SHUZO KK D13 = J8 0048-779
Improving taste and flavour of foods - 83953Y/47

TAKE 02.04.71 TAKEDA CHEMICAL IND KK B02 D16 = J8 0048-797
Alpha-amino-cephalosporins prep - 68428T/43

TAKE 30.05.72 TAKEDA CHEMICAL IND KK B02 D16 = J8 0048-798
Cephalosporins prodn - 35402V/19

TAKE/ 04.07.77 TAKEUCHI M D13 = J5 4014-537
Storage stable brine compsn. - 00445D/01

TATL 22.02.80 TATE & LYLE LTD A11 C03 D13 G02 (A97 D16 D17) = GB 2050-405
Thixotropic polysaccharide - 68183C/39

*TEAI= 31.01.78 TEA IND RES-MFG COMBINE D13 *SU -733-615
Processing green leaf tea - 01329D/02

TEIJ 07.05.73 TEIJIN KK A88 D15 J01 (A26) = J8 0048-841
Castable poly(N-acrylbenzimidazole amide) solns - 52984W/32

TERU- 04.06.79 TERUMO CORP D16 = WP 8002-694
Microorganism culturing tube - 90583C/51

THOM 14.04.76 THOMAE K GMBH B05 C03 D21 E14 = IL --51-865
Perfluoro-acyl or tetrafluoro-cyclobutyl-carbonyl resorcinols - 74152Y/42

*THOR/ 20.08.79 THOREL J N B05 D21 *BE -884-850
Plaque detecting and treating dental compsns. - 00802D/02

*TIEM/ 26.02.79 TIEMSTRAP J D13 *US 4241-099
Gelled prods. prep. with high-methoxy pectin - 01861D/02

TOKA- 01.08.74 TOYO KASEI KOGYO KK D16 = J5 1017-068
Automatic stirrer for brewing tank - 01190D/02

*TOKA- 01.08.74 TOYO KASEI KOGYO KK D16 *J8 0048-853
Automatic stirrer for brewing tank - 01190D/02

TOKZ 07.07.71 TOKYO ORG CHEM IND KK D15 D22 E12 (D22) = J4 8018-426
Bactericide for use in swimming pools, cosmetics inks etc. - 01194D/02

*TOKZ 07.07.71 TOKYO ORG CHEM IND KK D15 D22 E12 (D22) *J8 0048-874
Bactericide for use in swimming pools, cosmetics inks etc. - 01194D/02

TORA 10.08.78 TORAY IND INC A88 D15 E17 J01 (A11 E15) #US 4239-545
Reverse osmosis membrane comprising cellulose deriv. - 08848B/05

TOWN 06.06.79 TOWNSEND ENG CO D12 = NL 8003-251
Cutting sausage links suspended from slotted hook conveyor - 88073C/49

TOXN 31.03.73 TOYO JOZO KK B02 D16 = J8 0048-799
Alpha-aminopenicillin and cephalosporin prod from amino acids - 26542W/16

TOXN 06.06.79 TOYO JOZO KK B04 D16 = NL 8003-236
Microbial glycerokinase enzyme - 90461C/51

TUCH- 24.04.79 TUCHENHAGEN O GMBH D16 T05 X25 = GB 2050-6
Monitoring of cleaning equipment in fermenting vat - 64215C/37

*TUPI/ 27.07.77 TUPITSINII D11 *SU -733-598
Dough pieces loader for conveyor in bread-baking oven - 01315D/02

UGIN 05.10.70 PROD CHIM UGINE KUHLMANN D18 E21 = J8 004
195
Brown water-sol azo dyes - 21068T/13

UGIN 14.03.79 PROD CHIM UGINE KUHLMANN D15 = FR 2451-346
Treating waste water with hydrogen peroxide to remove sulphur - 67748C/39

*UIIN- 11.05.78 U & I INC D13 *US 4241-093
Food supplement prep. from vegetable pulp esp. sugar-beet - 01855D/02

*UNES- 30.09.80 UNESP UNIV ESTADUAL D16 *BR 8006-282
Prodn. of microbial malic dehydrogenase - D/02

UNIC 18.04.79 UNION CARBIDE CORP D15 = US 4240-905
Aeration of liquid-solid mixture - 79266C/45

UNIC 04.06.79 UNION CARBIDE CORP D12 T06 X25 = NL 8003-226
Machine to fill tubular sausage casings from collapsed concertina foil - 90143C/51

UNIL 06.09.74 UNILEVER NV D25 E33 (E34) = AT 7506-879
Detergent compsns. esp. for clothes - 20734X/12

UNIL 17.10.75 UNILEVER NV A97 D25 = AT 7607-663
Washing powders contg. nonionic surfactant and water-soluble soap - 27114Y/16

UNIL 10.09.76 UNILEVER NV C03 D23 = AT 7706-434
Purifying tri:glyceride cpds. by adding hydratable phosphatide - 19676A/11

UNIL 31.05.78 UNILEVER NV A97 C03 D13 = AT 8003-976
Stable liquid animal feed, e.g. milk substitute for calves - 87598B/49

UNIL 09.05.79 UNILEVER NV A97 D25 = BR 8002-744
Coloured speckled detergent for use in washing powder - 86827C/49

UNIL 11.05.79 UNILEVER NV D13 = DK 8002-042
Ice confectionery mouldings extraction - 84812C/48

UNIL 12.05.80 UNILEVER NV D13 = GB 2050-590
Ice confectionery mouldings extraction - 84812C/48

*UNIW 01.03.78 WASHINGTON STATE UN B03 C02 D16 *US 4239-690
Macrolide polylactone(s) Grahamimycin(s) A and B - 01535D/02

*UNIW 15.11.78 UNIV OF WASHINGTON A96 D16 J01 *US 4239-714
Modifying pore size distribution of microporous sepn. medium - 01549D/02

USDC 07.03.77 US SEC OF COMMERCE D13 = IL --53-192
Prepn. of protein isolates from safflower seeds - 15764A/08

*USGO 27.03.79 US GOVERNMENT D16 *US 4241-187
Appts. for culturing biological cells and tissues - 01903D/02

USGO 27.09.79 US GOVERNMENT B04 D16 = US 4239-749
Neisseria gonorrhoeae vaccine - 79089B/43

*USIN- 31.01.79 USINAGE REVISIONS D11 *FR 2447-884
Bakery elevator for loading and discharging oven shelves - 00832D/02

*USSU= 13.09.77 USSURIISK BUTTERFAT D13 *SU -733-722
Soya bean sepn. from impurities - 01347D/02

*UYCA- 22.08.80 UNIV CATHOLIQUE LOU A96 B04 D16 *BE -884-876
Microbial cells immobilisation - 00811D/02

*UYCA- 22.08.80 UNIV CATHOLIQUE LOU A96 B04 D16 *BE -884-877
Immobilisation of microbial cells - 00812D/02

*UYCA- 22.08.80 UNIV CATHOLIQUE LOU A96 B04 D16 *BE -884-878
Immobilisation of microbial cells - 00813D/02

*UYCH- 07.06.79 UNIV CHICAGO B06 D21 *WP 8002-642
Reducing cariogenic activity of sugar, foods etc. - 01942D/02

*UYTB= 20.07.77 TBILISI UNIV D23 *SU -732-366
Extn. of ethereal oils from citrus fruit - 01297D/02

UYVI- 26.01.76 UNIV OF VIRGINIA D21 = CA 1090-502
Filling teeth with dental amalgam - 56966Y/32

VEOS 07.09.72 VER OSTERR EISEN & STAHL D15 J03 = J4 9093-962
Oil separation - 21456V/12

VEOS 07.09.72 VER OSTERR EISEN & STAHL D15 J03 = J8 0048-848
Oil separation - 21456V/12

VETE= 04.06.79 VETERINARY EXPER IN B04 C03 D16 #GB 2050-161
Live vaccine against theileriosis in cattle - 88444C/50

*VINN= 13.12.77 VINNITSA TECHN DES D14 *SU -733-626
Basket for sterilising cans of preserve in autoclaves - 01332D/02

*VOLA- 05.01.77 VOLAC LTD C03 D13 *GB 1582-451
Ruminant feed supplement contg. delactosed whey - 00880D/02

*WBAS= 26.12.77 W BASIN IND ASSOC D15 J04 S03 *SU -732-725
Sea-water sampler - 01307D/02

WEIS- 07.05.79 GEBR WEISS KG D16 H09 #SE 7903-978
White peat processing for combustion - 82715C/47

*WFRA- 25.02.77 WFR/AQUAPLAST CORP A96 D22 (A23 A32) *US 4240-415
Orthopaedic cast prep. from poly-epsilon caprolactone sheet - 01673D/02

WINT/ 02.05.75 WINTERBERG A A97 C02 D13 E13 = IL --47-218
Fungistatic coating for edible goods, esp. whole cheeses - 87271X/47

= 13.03.79 WOOL IND RES INST D22 E21 F06 = FR 2451-388
active azo dyes with antimicrobial activity - 70047C/40
= 13.03.79 WOOL IND RES INST D22 E21 F06 = J5 5144-055
active azo dyes with antimicrobial activity - 70047C/40
26.09.77 WRIGLEY W JR CO D13 E17 = GB 1582-499
ewing gum for stimulating saliva flow, esp. for athletes - 65304A/37

22.12.76 XEDA INT SA D14 *IL --53-172
vice for chemical or thermal treatment of vegetable and fruit prods. -
'02

A-21.01.76 YAMAUMI KK D13 = J5 2090-641
ing foodstuff without adversely affecting taste and flavour -
83D/02

A-21.01.76 YAMAUMI KK D13 *J8 0048-788
ing foodstuff without adversely affecting taste and flavour -
83D/02

6 05.02.75 YAMASA SHOYU KK B03 D13 E11 (B02) = J8 0048-795
Nucleotides useful as seasoning agents or pharmaceuticals -
944X/39

6 02.06.75 YAMASA SHOYU KK B03 D16 = J8 0048-796
abinofuranosylpyrimidine monophosphoric acids - 06541Y/04

26.01.78 YEDA RES & DEV CO LTD D16 *IL --53-893
vice for harvesting cell cultures - D/02

6 29.12.77 YAMAMOTO KAGAKU GOS KK D18 E21 = J8 0049-197
ather dyeing method - 64018B/35

G 16.04.75 YOKOGAWA ELECTRIC WKS KK D13 E36 J04 = J5 1120-

termn. of ozone concn. in water by polarographic method - 01151D/02

G 16.04.75 YOKOGAWA ELECTRIC WKS KK D13 E36 J04 *J8 0048-254

termn. of ozone concn. in water by polarographic method - 01151D/02

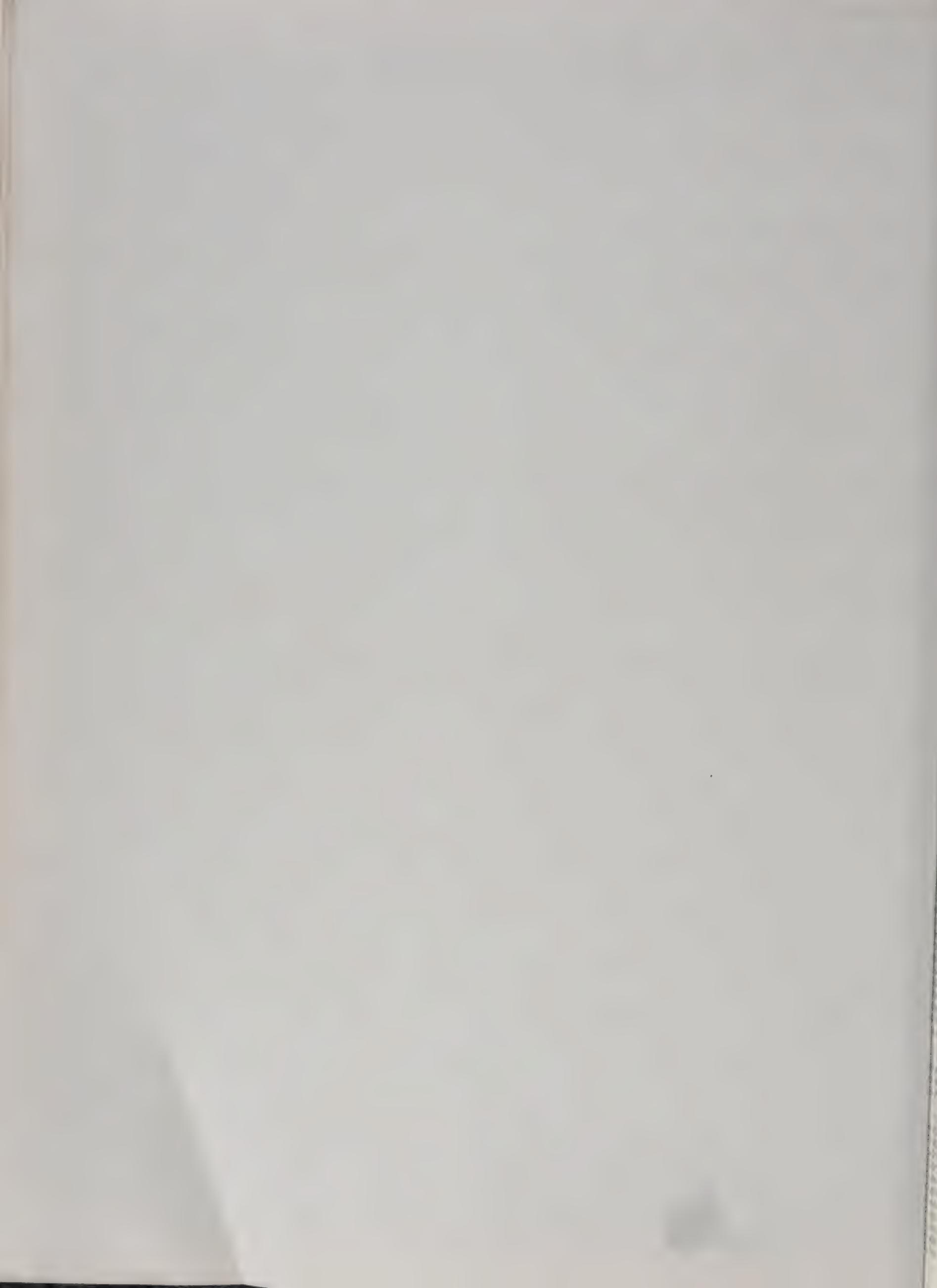
4/ 20.06.73 YOSHIDA R D21 M26 = J5 0017-092

fg. metal alloy for filling teeth in dental surgery - 01146D/02

4/ 20.06.73 YOSHIDA R D21 M26 *J8 0048-091

fg. metal alloy for filling teeth in dental surgery - 01146D/02

B 06.03.79 ZAMBON SPA B05 D21 E16 = J5 5143-961
ercapto:propionamido-acetic acid derivs. - 68129C/39



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-720 T01	US 4241-085 D02+	DE 2409-269 W36	US 3972-930 X33		US 4031-254 Y26+	FR 2334-313 Y39+	DE 2723-191 Y50
-684 T13	55699-U DJ	NL 7501-830 W37	ZA 7600-964 Y13	06541-Y BD	CA 1090-652 D02	CH -595-055 A09+	J5 2154-590 A06
-128 T47	US 3756-408 U38	SE 7501-992 W42	AT 7601-158 A35	J5 1142-596 Y04		GB 1528-466 A41+	BR 7703-307 A08
-720 U33	DE 2330-445 V02	FR 2261-798 W50	AT 7901-306 D02	J8 0048-796 D02		AT 7609-074 D02+	FR 2352-057 A10
-966 W32	DS 2409-269 X06	US 3984-329 X42	65270-X BD	16457-Y D	54099-Y BCD		J5 5143-916 D02+
-965 W32+	GB 1394-487 W20	GB 1486-345 Y38	DE 2603-321 X35	BE -845-866 Y10	BE -850-899 Y31	74152-Y BCDE	A
-861 W45+	CA -564-364 W34	J8 0047-928 D01	BE -838-342 X35	NL 7609-825 Y12	DE 2703-938 Y33	BE -853-558 Y42	
-387 C49	J4 9052-185 D02	J5 0125-366 D02	NL 7601-226 X35	DE 2639-594 Y12	J5 2108-094 Y42	NL 7703-133 Y44	
-863 D02+	J8 0048-846 D02	DK 7600-489 X43	SE 7609-535 Y15	SE 2340-325 Y47	FR 2340-325 Y47	DE 2616-479 Y45	
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-723 U19	HU T010-898 X08	CA 1064-394 B44	CA 1064-394 B44	DE 2702-669 Y31	DK 7701-643 A02	NL 7709-207 A10	
-370 V48	GB 1437-274 X22	AT 7600-837 D02	AT 7606-424 D02	SE 7600-739 Y36	NO 7703-721 A02	DK 7703-654 A17	
-369 V48	DS 2345-353 Y27	J5 1026-853 X16	DE 2520-173 X50	FR 2361-329 A19	SE 7704-256 A13	BR 7705-489 A19	
-368 V48	SU -593-655 B02	SE 7604-128 X51	DE 2645-880 Y17	CA 1090-650 D02	PT --66-432 A47	FR 2361-835 A20	
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-969 T42	US 4076-703 A11+	GB 1483-998 Y34	DE 2645-881 Y17	NL 7700-678 Y32	03972-A ADE		
-808 V06	US 4076-702 A11+	AT 7602-036 A11	NL 7611-463 Y18	DE 2702-923 Y33	US 4065-409 A02		
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-388 T48	US 4240-957 D02+	SE 8005-510 D02	ZA 7606-174 A25	DE 2717-766 Y45	CA 1090-671 D02+		
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-866 T48	DE 2534-162 X08+	FI 7600-562 X48	27225-Y DEF	DE 2629-268 A03			
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-784 X16	ZA 7507-631 Y01	GB 1531-349 A45+	J5 4011-228 B10				
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SE 7710-167 A16	FR 2378-854 A44+	AT 7804-550 D02					
NO 7703-123 A17	FR 2385-733 B02+	SE 7712-193 B25					
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DK 7703-997 A20	US 4182-885 C03	02342-B D					
FR 2364-267 A23	IL --53-590 D02	DE 2846-483 B21					
RR 7706-018 A28	FR 2438-020 C29	NO 7803-527 B25					
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	49719-A DF	06142-B BDE					
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	DE 2800-132 A29	J5 3139-734 B03					
	NL 7800-172 A30	US 4240-450 D02					
	SE 7800-112 A33	06142-B BDE					
	FR 2376-074 A40	FR 2383-660 A51					

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01183-D

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D B04D16	DK 8000 = 731 69578C B03D16	IL --47 = 218 87271X A97C02D13E13	J5 5143 = 269 30879C A92D22Q3+P3 = 440 71999C D16S03+R1
875B D21E19		IL --51 = 865 74152Y B05C03D21E14	= 906 79057C D22 * 907 01009D D21
874B D21E13			* 908 01010D D21E13 * 909 01011D D21E15
142B B05D21E16	DK 8001 = 707 67763C C04D16E17H06+P1 = 708 67764C C04D16E17H06+P1 = 912 90824C B04D16 = 995 84771C D11Q3	IL --52 * 536 D D22T06X25P1 = 940 25194A C03D13	= 916 88537Y B04D16+P3 * 920 01015D B05D13E17 = 940 90527C A60D25E24F06 = 961 68129C B05D21E16 = 994 79272C B02D16
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D D12			
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D D21		J4 8044 = 415 24737U C02D16+Q6	= 790 42562U D13E17 = 793 26543W B02D16 = 794 45146W B02D16 = 795 72944X B03D13E11
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D D12		J4 9052 = 185 55699U D15J01T06+R2	= 844 55699U D15J01T06+R2 * 847 01187D D15
698B A97C03D13	FR 2454 # 210 29959B D15J01 = 223 67991C D13P4 * 225 00844D D17J01P4 = 253 38293C A88D14P4 = 345 65001Y D15 = 346 67748C D15 = 357 70061C B05D13E17	J4 9093 = 962 21456V D15J03	= 848 21456V D15J03 * 850 01188D D15 * 853 01190D D16
781D D21E24		J4 9108 = 267 01180D A97D13	= 863 00311T D15J01 = 871 29218X D15 = 872 13174A D15E36 = 873 11766X D15J01 * 874 01194D D15D22E12
783D D12		J5 0007 = 803 00421D D23	* 875 01195D D15
788D D13		J5 0017 = 092 01146D D21M26	
802D B05D21		J5 0071 = 863 01181D D12E13	
811D A96B04D16	GB 1582 * 228 00863D D15J04S03R1 = 290 14038A A97D25E16F06 = 294 75958Y B04C03D16 = 299 15920A D25E19F06 = 303 85018Y B04D16S03S05R1+R4 = 304 85018Y B04D16S03S05R1+R4 = 310 08372A A96D22P5+P3 * 319 00873D D13 = 378 59473Y B05C03D16	J5 0091 = 950 00447D D15	J8 0049 = 006 37014X D13
812D A96B04D16			= 009 66325W D15E33
813D A96B04D16		J5 0100 = 258 01182D D12E19	= 011 76406X D17E33J01L02
770C B05D21E11		J5 0115 = 680 01187D D15	= 042 83123X A97C03D15+P1
D D16J01Q7			= 043 33844T B05C03D22E14
D A96D21P3Q7			= 088 75874Y D21E24
556C A97D16E13P1+P7			= 098 61146A C03D22E15+P3
791C D17E36			= 099 61147A C03D22E15+P3
775C D23E13			= 195 21068T D18E21
727C A97D25			= 197 64018B D18E21
448C A97D25E19F06			
795C A97D25E19			
711C A41C04D15E16			
D D15			
664C C04D16E17H06+P1			
663C C04D16E17H06+P1			

NL 7904

NL 7904
 * 454 01228D D14J01
 # 545 79129B A96B05D21

NL 7907
 = 236 34603C A96D21
 = 374 34604C A96D21

NL 8003
 = 226 90143C D12T06X25R2
 = 236 90461C B04D16
 * 241 01233D A11D25
 = 251 88073C D12+P6
 = 314 73516C D13T05Q7+R1

NO 8001
 = 443 86753C B04D16

PT -70
 = 564 45926C A96D22F01P3

PT -71
 = 346 09176C D15Q7
 = 349 90140C B02C02D16
 = 350 90141C B02C02D16
 * 365 D D15
 = 369 75366C D16
 * 433 D B03D22
 * 466 D D12V04X25Q3
 * 467 D D12P7Q3

SE 7903
 = 856 86329C D21
 = 886 90094C A96D22P3
 # 978 82715C D16H09

SE 7904
 = 028 84765C A96D21

SE 8003
 = 070 84727C D12
 = 379 84771C D11Q3
 = 430 67763C C04D16E17H06+P1
 = 431 67764C C04D16E17H06+P1
 = 488 65987C B04D16+R1

SE 8005
 = 510 70494X B03D13E13

SU -732
 * 365 01296D D23E11
 * 366 01297D D23
 * 725 01307D D15J04S03R1

SU -733
 = 521 34542W D15J03X25
 * 592 01313D C03D13E17F01P1
 * 597 01314D D11
 * 598 01315D D11
 * 599 01316D D11
 * 600 01317D D13
 * 603 01318D D12P3
 * 604 01319D D12
 * 605 01320D D12
 * 606 01321D D12
 * 607 01322D D12
 * 608 01323D D12
 * 609 01324D D12
 * 610 01325D D14
 * 611 01326D D12
 * 613 01327D D14
 * 614 01328D D13S03X25R1
 * 615 01329D D13
 * 623 01330D D13
 * 625 01331D D14Q3
 * 626 01332D D14
 * 627 01333D D14
 * 628 01334D D14P4
 * 629 01335D D18P1
 * 630 01336D D18P1
 * 704 01342D D15
 * 707 01345D D13J02
 * 722 01347D D13P4
 * 723 01348D D13P4

US 4238
 = 939 73808B D18+P6
 = 997 12937C D13
 = 998 58456B D14S02R1+P7

US 4239
 = 043 88809C A96D22+P3
 = 113 72816A A96D22L02P3+Q3
 * 175 01412D D14
 * 394 01426D D13J04S03X25R1
 * 492 01435D D22
 = 493 00282B D15J04T06R2
 = 525 01804C C02D22E13F09
 = 533 60129B D21L03M26V02+R4
 * 541 01463D D22E33G02
 # 545 08848B A88D15E17J01
 = 552 15064C D25E19

US 4239
 = 589 27724C D15F09
 * 601 01494D D15J01
 = 620 81145C D15H05J01M11
 * 621 01505D D15E36
 = 622 86113A D15E16
 * 631 01511D D25E16
 * 639 01514D A92D25P7Q3
 = 640 33801A D25E17
 = 641 15065C D25E17
 = 659 46664C A97D25E19
 * 660 01520D A97D25E16
 = 662 64914B A97D25E19
 * 664 01522D A96B04D22
 * 690 01535D B03C02D16
 * 695 01539D D25E11H01M14
 * 714 01549D A96D16J01
 = 730 54396Y D22P3
 * 731 01557D D22E13P3
 * 745 01564D B04D16K08S03Q3R1
 = 749 79089B B04D16
 = 750 56404B B03C03D13
 = 751 72165X B04D16
 = 772 88682C B02C02D13
 * 781 01574D A96B04D21
 * 782 01575D C03D13
 * 783 01576D D11
 * 784 39849Y D13
 * 785 01577D D12
 * 786 01578D D13
 = 852 24010B B04D13J04S03R1
 # 854 80990B A96B04D16
 = 902 75673B B04D16J04S03R1
 = 915 42487A A60D25E16F06
 # 920 84723B D22E14
 = 922 03828C D13E17
 = 923 33794A D23E15

US 4240
 * 163 01660D A96B04D22P3
 = 164 39310B D15+P2
 * 186 01662D D22
 * 267 01666D D15Q7
 = 376 11105A D15E36P1
 * 397 01672D D11Q7
 * 415 01673D A96D22P3
 = 416 68978A A87D22P3P7
 * 436 01686D A96D22P3
 * 447 01689D D18E13P1
 = 450 67034A A96D21+P2
 = 578 84401A D15J01P4
 = 591 77233B D14P4+P2
 * 760 01710D A96D21P2
 * 779 01713D D14P1
 * 794 01717D A96D22P3
 = 800 40962B D17H03J01
 = 808 28060B D15E35H09
 = 832 60771C A96D21E33
 = 904 02342B D15
 = 905 79266C D15
 * 906 01766D D15
 = 909 44395A A18D22J04M25R1
 # 911 61816B D15
 = 914 40894B A88D15J01+P7
 = 918 33374B A97D25
 = 919 41937C D25E12
 = 920 64996B D25E19
 * 921 01771D A97D25
 * 926 01774D D22E13
 * 937 01779D A96D22F01
 = 957 00113X B05C03D13E14
 * 969 01798D D23E13
 = 972 54003C D23
 = 980 79391B D25E16
 * 985 01804D D23E17
 = 990 85934B D15J02

US 4241
 = 007 79296B D22F04P3
 = 010 82930C D22P3
 * 020 01823D D22S05T06P3R2
 * 025 01824D D15
 = 039 29781B D15J01M25
 * 049 01836D A96B05D21
 * 061 01840D B02C02D13
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 * 096 01858D D13
 * 097 01859D D13E13
 * 098 01860D D13E17
 * 099 01861D D13
 = 100 54986B D13
 * 106 01866D D11
 = 179 14730C B04D16S03S05R1
 * 180 01898D D16J04L01
 * 181 01899D B04D16

US 4241
 = 182 66600B B03D16E13
 * 183 01900D D17
 * 184 01901D D16E17
 * 185 01902D D16
 = 186 48398C D16
 * 187 01903D D16
 * 188 01904D D16
 = 214 76318T B03C01D22E12+P3
 = 226 68495B A25D22E16
 = 227 84875Y D15J01
 * 228 01926D D23E15

WP 8002
 * 635 01940D D12
 = 636 84392C D13
 * 640 01941D D21S05P3
 = 641 73500C A96D22P3
 * 642 01942D B06D21
 * 644 01944D D22P3
 * 650 01946D D15J01X25
 * 688 01960D A14D15
 = 694 90583C D16+Q3
 * 695 01964D D16
 * 697 01965D A96B04D16S03R1
 * 747 01983D B04D16K08S03R1
 * 788 01985D D12
 * 840 02004D A96D22
 = 848 00129D B04D16
 = 849 77096C D16J04S03R1